NewBay

SEPTEMBER 2016 | **#175** | £4 / €7 / $13

# develop

GAME DESIGN | CODING | ART | SOUND | BUSINESS



# THE MADNESS OF NOLAN BUSHNELL

THE GODFATHER OF VIDEO GAMES REVEALS HIS UNORTHODOX DESIGN PROCESS

ENGINES SPECIAL ■ WORK-FOR-HIRE ■ ID@XBOX ■ HISTORICAL SHOOTERS

# eSPORTS INDUSTRY AWARDS 2016

## NOVEMBER 21ST, THE BREWERY




# CONGRATULATIONS TO ALL OUR FINALISTS

FOR TABLE BOOKINGS AND THE FULL LIST OF NOMINEES PLEASE VISIT:
www.esportsindustryawards.com

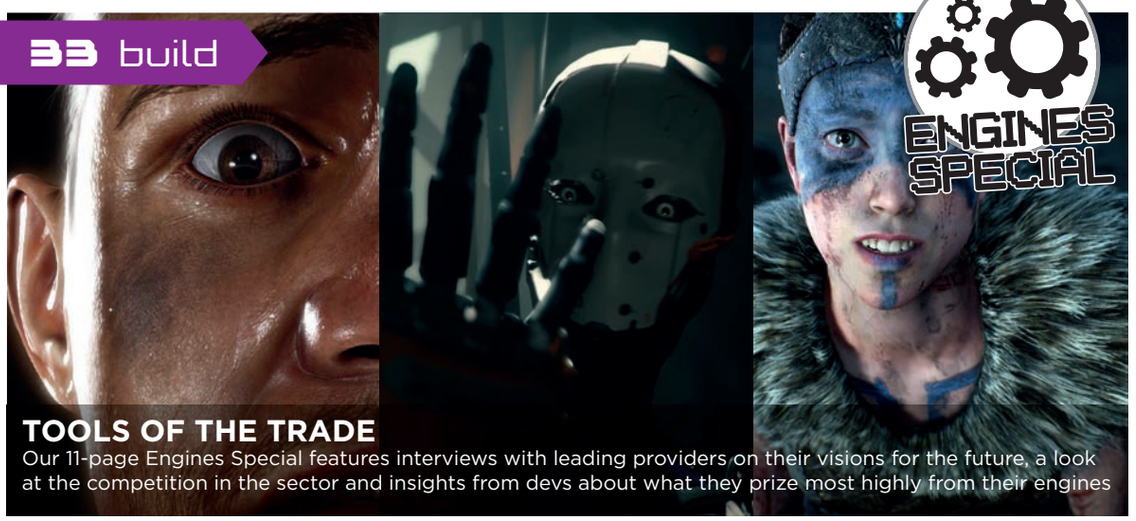
FOR SPONSORSHIP ENQUIRIES PLEASE CONTACT CONOR TALLON:
conor.tallon@esportsindustryawards.com

official livestream partner twitch | exclusive headline partner NOW TV | official broadcast partner GFINITY | powered by MCV

@esportsia | #esportsia

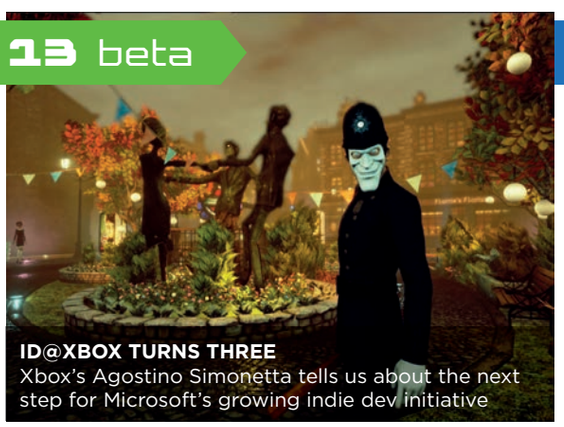
develop #175 SEPTEMBER 2016


33 build



**TOOLS OF THE TRADE**
Our 11-page Engines Special features interviews with leading providers on their visions for the future, a look at the competition in the sector and insights from devs about what they prize most highly from their engines

13 beta



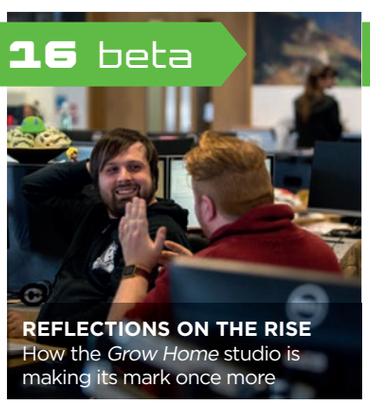
**ID@XBOX TURNS THREE**
Xbox's Agostino Simonetta tells us about the next step for Microsoft's growing indie dev initiative

09 alpha



**SEUSS, SILLY SONGS & SMARTPHONES**
We sit in on a bizarre design meeting between Spil Games and industry pioneer Nolan Bushnell

16 beta



**REFLECTIONS ON THE RISE**
How the *Grow Home* studio is making its mark once more

19 beta



**WHY GO WORK-FOR-HIRE?**
Studios share their success stories in creative outsourcing

99 build



**'THE NINETIES WERE EASIER'**
Why making *Yooka-Laylee* has been tougher than expected

**ALSO** • **06** Diary Dates • **10** Opinion • **24** Studio Spotlight • **27** Develop Jobs • **50** Coda


## Editorial

# FUN FROM THE START



**Turn the page and you'll read how Nolan Bushnell, one of the most senior figures in the industry, is happy to burst into song while designing a new game.**

It's not necessarily an essential part of the process, but it emphasises his point: developers need to loosen up if they're going to reach the most creative ideas. It's advice any creator, let alone game devs, should take to heart.

Few things can be as simultaneously exciting and cripplingly daunting as a blank canvas – particularly with the knowledge that whatever you fill it with has to engage hundreds, thousands or perhaps millions of people.

> **Sing songs with each other. Tell jokes. Forget the pressure, and embrace the possibilities.**

It can be easy to focus on what that audience already enjoys, formulas that have already proven popular or even your own past successes. But if you're worrying about recreating that success, you won't be as receptive to concepts that could take you in wonderful new directions.

Never forget that it's not just a product you're making, it's art. It's an expression of your team and their passions, and that will be most readily apparent if you're passionate about each project from the very beginning.

So give it a go. Sing songs with each other. Tell jokes. Draw ludicrous characters on those wipe boards. Forget the pressure, embrace the possibility. Have fun – and hopefully your players will, too.

**James Batchelor**
*jbatchelor@nbmedia.com*

## CONTACTS





**Editor**
**James Batchelor**
jbatchelor@nbmedia.com

**Deputy Editor**
**Matthew Jarvis**
mjarvis@nbmedia.com

**Staff Writer**
**Marie Dealessandri**
mdealessandri@nbmedia.com

**Designer**
**Julie Champness**
jchampness@nbmedia.com

**Production Executive**
**James Marinos**
jmarinos@nbmedia.com

**Account Manager**
**Charlotte Nangle**
cnangle@nbmedia.com

**Contributors** John Broomhall, Will Freeman, Rick Gibson, Liz Prince, Stephanie Llamas, Darryl Still

**Editorial:** 01992 515 303 **Advertising:** 0207 354 6000 **Web:** www.develop-online.net

Follow us on www.facebook.com/developonline www.twitter.com/developonline

**INNO DA CLUB**
Highlights from InnoGames' Gamescom party
**P08**

**FRANCHISE FRANKNESS**
KISS' Darryl Still reveals how to be realistic about new IP
**P11**

**WHERE TAX CREDIT IS DUE**
Rick Gibson examines developers' reception of UK Games Tax Relief
**P12**



# MISCHIEVOUS MAKING

When Nolan Bushnell summons Spil's staff to a games design meeting, things are sure to get interesting. **Will Freeman** listens in on an industry legend fostering creativity through tomfoolery

Nolan Bushnell is sat at a large conference table with a beaming grin.

Around him, nothing particularly stands out that could justify such a delighted smile. He and a handful of staff from Dutch studio Spil have only just entered the room. It is early in the morning, a couple of coffees have been poured, and a wipe board has had any evidence of the previous evening's meeting erased from its surface. Nothing unusual so far.

As everyone else sits down, Bushnell's smile only widens. It isn't just due to the coffee before him. And it can't be that a meeting-standard plate of pastries so easily delights him either. Something else is going on.

Bushnell is clearly looking forward to what is coming next: a game design meeting, where a basic concept he conceived in the early 1990s is to be fleshed out a as starting point for a new Spil mobile title.

## CASUAL DESIGN

Bushnell, famously, is the co-founder of Atari, the man who commissioned *Pong* and one of the games industry's earliest entrepreneurs.

He has partnered with Spil to turn his hand to making mobile games, which brings him to the dev's breezy converted factory building in the town of Hilversum, not far from Amsterdam.

The game that has prompted the design meeting is *Bloxx*, a puzzler that – for the day's opening few hours, at least – is described by a grid of hastily sketched lines and various scribbles.

Sat in the meeting, it's immediately obvious how laid-back things are with Bushnell at the helm. He is certainly in charge here, conducting conversation by waving three marker pens clutched in a single fist, but the creative hierarchy is clearly very flat, and the organisational framework is apparently bare bones to the extreme. There are no agendas to pass around or schedules to follow.

"What have we got?" Bushnell asks Spil's junior product manager Nicola Mizon, junior game designer Kayleigh Mizon and VP of content Franz Stradal.

Immediately ideas are thrown forth. The tone is calm, but talking through the design of what *Bloxx* might become is a conversation prone to wild changes in direction, and Bushnell appears to be keen to see that happen.

Structure and hierarchy, it would seem, are not prime concerns.

"Hierarchy kills creativity," Bushnell later confirms. "If everyone feels respected and part of a group, they are more likely to voice an opinion. That creates the very best outcome. I try to always create the atmosphere of mutual respect and to value all opinions, to glean a best approach to any problem."

Respect certainly abounds in the room, and Bushnell is careful to give everyone a voice – including those there purely to observe. Creativity is something he seems keen to squeeze from all around him.

## SERIOUSLY SILLY

A tone of mischief is also near tangible, buoyed up by digressions into silliness and a consistent spirit of playfulness.

There is work being done, and ideas for theme and mechanics come at a striking rate. But, equally, there is a sense that at any moment proceedings could tumble into the absurd.

At one point, Bushnell is reminded of a Dr. Seuss song by a colleague's suggestion for the game. Delivering a few lines, however, isn't enough, as he belts out the song in its entirety, before finishing with a satisfied sigh. That grin is back, and he's ready to go again.

"Now, where were we?" he asks.

It turns out, though, that the songs and jokes aren't a trivial part of this process. Silliness is a serious business for this veteran of play.

"By its nature the creative process is a bit anarchist, and humour and fun are part of that," Bushnell insists. "Humour is a way to add silly to the dialogue. Silly is often the path to extreme creativity, since it probably breaks more rules than the serious idea. Yes, I try to inject humour as often as possible."

## ATARI REFINED

While he may be confident in his role as a maestro of daftness, Bushnell will actually tell you he is not a game designer, at least by any strict definition. As the idea of what *Bloxx* can be develops, he absolutely provides inputs at a meticulous level and thrives getting into the finer details of how the game will work mechanically.

Yet, he does predominantly play the conductor role, seemingly guiding other's ideas more frequently than he tosses his own into the ring.

"It is both a continuation of the Atari process, and a refinement," he says. "Over the years, I have found common threads that separate creative companies from those that are simply evolutionary, or stuck in their past.

"Big companies reject silly because they think they are way too cool. That limits their outcomes and you end up like Apple, stuck in the bigger – littler – faster, better mindset that is the track to the banal."

Evidently, Bushnell's playful demeanour has a sincere role to play far beyond the walls of a games design meeting.

When it comes to refining concepts for mobile games, however, his influence and impact is unambiguous. Or, it would be – except that he insists he isn't a designer.

"My skills have always been matching available technology to the marketplace," Bushnell offers by way of clarification. "Today, there are games and games and games. Without a marketing hook or a way to help the game monetise, your time is wasted. So today, success requires [you] to think not just about gameplay – which has to be spectacular – but how it fits in the market and the platforms. I advise all game designers to not start a game unless they have the marketing hook developed."

> **Silly is often the path to extreme creativity, since it probably breaks more rules than the serious idea.**
> *Nolan Bushnell*

That insight might get to the crux of it, and throw the light on something that Bushnell offered to a fledgling Atari as much as he offers to Spil. It's a little obvious considering his history, but Bushnell is a game entrepreneur. Games are his means to succeed, and game design is the method. The design process is something he can guide and inform, but he is not a game designer per se; he is perhaps better described as somebody who helps games design to thrive.

## NOLAN'S CHOICE

For all this talk of what Bushnell brings to Spil's conference table, it is easy to forget that it wasn't just that Spil chose the Atari icon; Bushnell equally selected Spil. The studio has been making games for over a decade, but compared to Bushnell's 40-plus years in the industry, it is a youthful upstart. So what did Bushnell see in Spil, when most mobile developers across the world would throw open their doors to him and delight in a single insight?

"I particularly like the level of talent at Spil," Bushnell offers simply. "I also like the level of passion and excitement that the people at Spil evidence. The team has a diversity of skills and understanding that many other companies lack.

"For example, in a very heavily male-dominated world, the fact that we have two capable women working on these projects is a breath of fresh air," he says. "In the mobile and casual game market, having a female perspective is very important. There is also a very egalitarian feeling between employees and management that is refreshing."

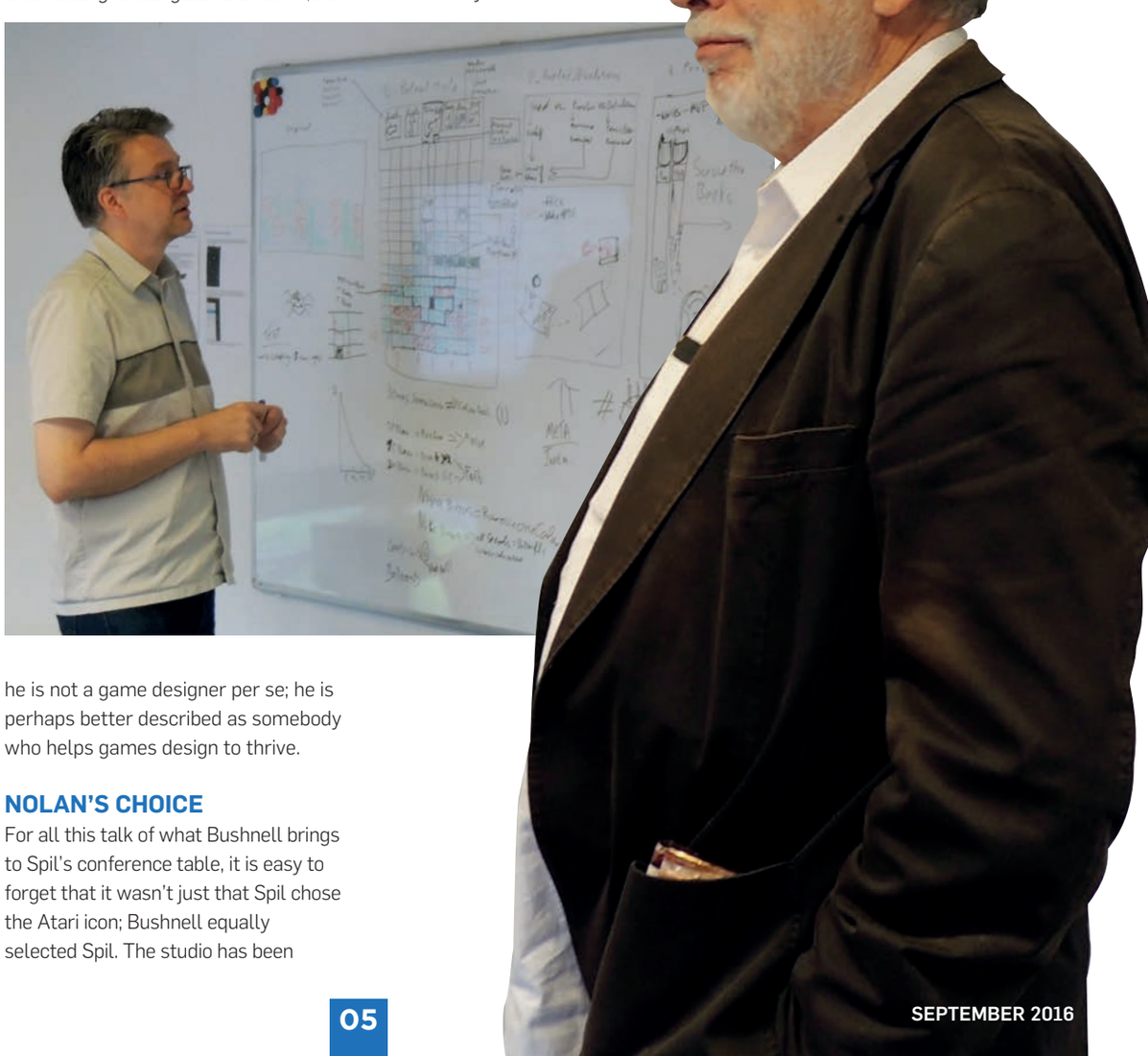
The design meeting, which is drawing to a close, has certainly been an egalitarian process. Those few lines of marker pen that first presented what *Bloxx* is on a fundamental level are now covered in layers of sketches and annotations, each depicting inputs from everybody gathered for the meeting.

Things draw to a close as casually as they kicked off, with Bushnell suggesting to everyone that it's time to wrap up. It's not that a certain time has come, or that a particular goal has been met; rather, he seems to sense that the flow of the meeting has come to a natural end.

As some of the Spil team write up the notes, or stare at the wipe board deep in thought, Bushnell dashes off, still talking enthusiastically as he passes through the door to order a cab. There's brief mention of another meeting.

What that meeting will be about isn't quite clear, but it's obvious he's a busy man. And if there's anything we can predict about his next session at a conference table, it is that he will start by sitting down with that beaming grin.

And – if it's needed to keep things on track – he may burst into song. ■



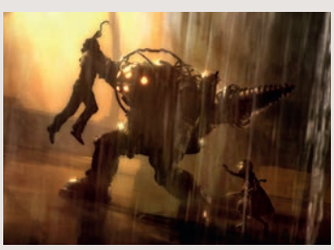
## AT A GLANCE



**SEPTEMBER 13TH**

**Eid-al-Adha**

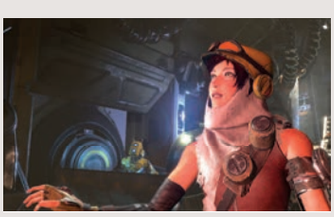
Many Muslims book time off work to celebrate this annual festival.



**SEPTEMBER 16TH**

**BioShock: The Collection**

"There's always a lighthouse, a man and a remastered re-release."



**SEPTEMBER 16TH**

**ReCore**

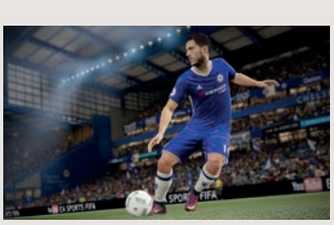
The Keiji Inafune-produced action adventure hits PC and Xbox One.



**SEPTEMBER 23TH**

**The Magnificent Seven**

Bored of movie remakes? Here's a remake of a remake to shake things up.



**SEPTEMBER 29TH**

**FIFA 17**

It's coming home, it's comi– oh, there's a new one every year?

## DIARY DATES



### EGX

**September 22nd to 25th**

*Birmingham, UK*

*eurogamer.net/expo*

### SEPTEMBER

**Brasil Game Show**
September 1st to 5th
São Paulo, Brazil
*brasilgameshow.com.br*

**PAX West**
September 2nd to 5th
Seattle, US
*west.paxsite.com*

**Pocket Gamer Connects**
September 5th to 6th
Helsinki, Finland
*pgconnects.com/helsinki*

**eSports Conference**
September 6th to 8th
Los Angeles, US
*esports-conference.com*

**External Development Summit**
September 7th to 9th
Vancouver, Canada
*xdsummit.com*

**VS-Games**
September 7th to 9th
Barcelona, Spain
*vsgames2016.com*

**DICE Europe**
September 11th to 13th
Barcelona, Spain
*diceeurope.org*

**Gaymer X**
September 30th to October 2nd
Santa Clara, US
*gaymerx.com*

## EVENT SPOTLIGHT




### EUROPEAN WOMEN IN GAMES CONFERENCE

**Where:** University of Greenwich, London, UK
**When:** September 7th
**What:** Co-hosted by *Develop* sister title *MCV* and not-for-profit Women in Games (WIGJ), this conference features talks, workshops and an expo to highlight showcase the industry's talent and inspire future devs to begin their career. This year's speakers include The Chinese Room's Jessica Curry, BAFTA's Anne Morrison, WIGJ CEO Marie-Claire Isaaman and MEP Terry Reintke.
**www.womeningamesconference.com**

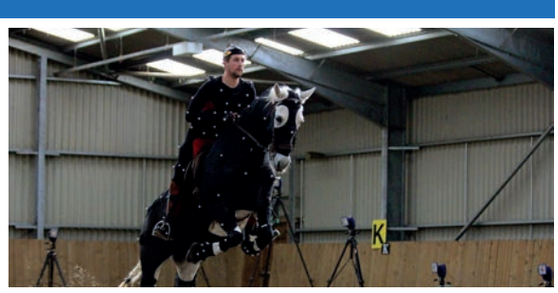
## COMING SOON



### DEVELOP #176

**OCTOBER 2016: THE VR ISSUE**

We dedicate the entire magazine to the hottest topic of the moment (and last year, and the year before that): VR. Experts working in the emerging medium offer their insight into how virtual reality is impacting game design, and the tools and engines powering the innovative sector.



### DEVELOP #177

**NOVEMBER 2016: THE MO-CAP ISSUE**

Characters in games have never looked better, with more realistic animation than ever before. We speak to the performance-capture firms leading the technical revolution, as well as the modelling and animation tools and techniques used to bring the characters to life.

**For editorial enquiries, please contact jbatchelor@nbmedia.com**
**For advertising opportunities, contact cnangle@nbmedia.com**

MoGi Group International

# Your Game Localization and Player Support Partner

## Experience

80+ In-House Player Support Agents and
50+ Native Speaking In-House Translators

## Global

40+ Languages Covered in
6 offices in the EU

## Talent

40+ Million Words
Localized in 2015

lilith GAMES
LOCKWOOD PUBLISHING
SOEDESCO
TRIPWIRE
dovetail GAMES
DAUM GAMES
WARGAMING.NET LET'S BATTLE
BUDGE STUDIOS
FOCUS HOME INTERACTIVE
NCSOFT
EPIC GAMES
TEAM17
LoG
netmarble
MiNO MONSTERS
CHERRY CREDITS
TILTING POINT
@mail.ru
STUDIO 100
NEXON
Wooga
SAMSUNG

## Contact us today!

www.mogi-translations.com
or sales@mogi.eu.com

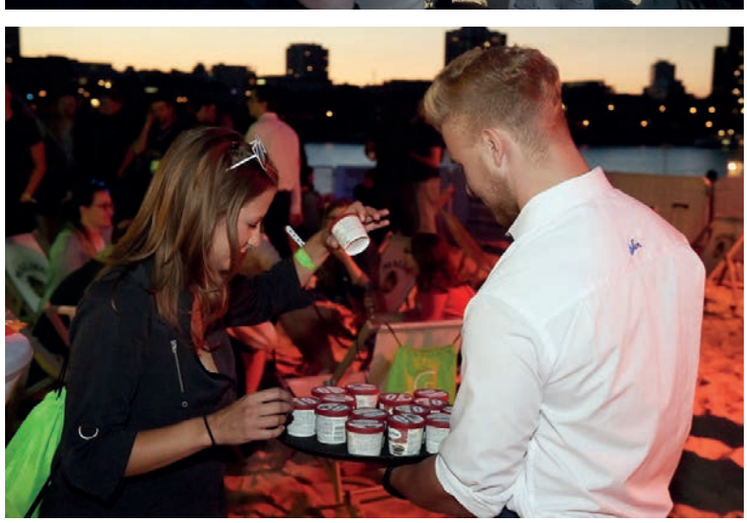


The party took place at Cologne's km 689 Beach Club at the side of the Rhine

# LIFE'S A BEACH

InnoGames once again invited the games industry to its beach party during last month's Gamescom in Cologne. **Develop** was also in attendance, and even helped name one of the event's signature drinks. And yes, we're unnecessarily proud of what we came up with: the Feel Beta. After all, what picks you up after a day of business meetings like a Mojito?







Drinks and ice cream were on hand to beat the summer heat









The Develop team were among the attendees – not least to sample our signature tipple, the Feel Beta



## How to make the Develop signature drink: Feel Beta

**You will need:**

- 65ml/2.5fl oz white rum
- One lime, sliced into wedges
- A handful of fresh mint leaves
- 2.5 tsp granulated sugar
- Splash of soda water
- Ice

**Steps:**

**1.** Put the lime wedges, mint and sugar into a highball glass and muddle (bash them) to release lime juice and bruise mint.
**2.** Add ice and pour over rum.
**3.** Splash soda water in to taste. Stir well and enjoy. (Mint leaf and lime slice garnish optional.)



# HOW CHINA'S BIGGEST COMPANIES ARE CRUSHING IT AT VIRTUAL REALITY

SuperData director of research and head of VR/AR strategy **Stephanie Llamas** takes a look at why companies in the region have embraced the nascent medium

Ever since Zuckerberg forked over $2 billion for Oculus in 2014, investors worldwide have been salivating at virtual reality's potential.

In its first year of consumer viability, 2016 virtual hardware sales will surpass $2.3 billion and drive the global market to surpass $40 billion by the end of 2020.

As Asia's population continues to burst at the seams, it's no wonder VR investors are eyeing its potential the way they did MMOs and mobile. But it is a blind spot for Western companies, especially when it comes to China's enormous but highly regulated market.

China has long capitalised on being a tech fast-follower rather than a global innovator. The state's intensive involvement in the private sector restricts firms' abilities to compete with the tactics other, freer markets use. There is also a cultural divide that has made for a ripe domestic market, but a difficult one for investors from outside of China.




It's not just for games – retailers and video platforms are also investing heavily in virtual reality

## TAKING ASIA

Asia's VR market will grow to almost $10bn over the next five years, largely driven by the sheer volume of production and investment coming out of China.

Close neighbors like Korea and Japan have also placed all bets on their biggest tech companies: the former's Samsung Gear VR and the latter's PlayStation VR. It's true that both countries boast two valuable hardware leaders and a handful of big game publishers, but they're clearly trying to catch up

Meanwhile, China's top guns are going after VR with a two-pronged strategy: by selling lots of goods for very cheap and infusing the foreign market with billions in investment.

Already do we see thousands of cheap headsets on Alibaba's various marketplaces. Although none of these devices are known for their quality, they are affordable and allow Alibaba to help push VR into the mainstream. As any *Risk* player knows, once you hold Asia, it's easy pickings from there.

Tencent is throwing itself into the ring by making a push for small content developers, many homegrown. They recently made a deal with local developer Original Force to create content for the company's production studio Tencent Pictures and invested $12 million in VR projects by popular travel and lifestyle site Zanadu.

This does not mean they are ignoring after the top markets: rather, Tencent bought itself a seat at the table by joining a $50 million funding round for American AR start-up Meta.

Tencent has focused much of their expansion on the games market; one of their most notable investments was the acquisition of *League of Legends* developer Riot in 2011. On the VR side, they recently invested in Epic Games and Altspace VR, two companies working on gamified virtual experiences.

Tencent is using this opportunity to capitalise on their own internal endeavors. The one billion users who access games through their messaging apps WeChat and QQ are the lowest hanging fruit. They recently created an AR game for the Olympic Games and announced upcoming VR functionalities for WeChat. Their plans to move into the micro-console space have provided them the opportunity to launch one of the first third-party VR-capable devices.

> **VR is on track to create an investment bubble if too many investors throw too much money its way.**

China's version of Google, Baidu, hasn't gotten as much international attention for its VR/AR ventures as Tencent and Alibaba, but their domestic investment has arguably been the largest in both scope and capital. Through its online video platform IQiyi.com, Baidu has set up its own exclusive platform for Chinese VR video content. To further bring more VR production into China, they announced a partner incentive program that will allow developers to make VR content around copyrighted movies, shows and games.

They are also taking a page from *Pokémon Go* by launching DuSee, an AR platform that allows smartphone apps to generate 3D images on flat surfaces.

## INVESTED INTEREST

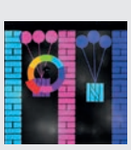
Although these three enterprises are leading the charge to bring VR innovation and revenues to China, other domestic companies have found their own opportunities. Two of China's largest media companies, Shanghai Media Group and China Media Capital, recently teamed up with leading content provider Jaunt to launch Jaunt China. Meanwhile, western start-up Spaces announced this summer they had entered into a $30m joint venture with Songcheng Performance Development, one of the world's biggest theme park operators, after raising $3 million in funding.

However, virtual reality is on track to create an investment bubble if too many investors throw too much money its way. So in time we will see whether these companies are actually ahead of the curve or on track to burst with the rest of 'em.

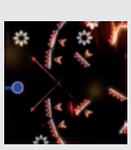
Either way, aggressive offshore investments like these are making China's tech sector virtually unstoppable. ■

Stephanie Llamas is director of research and head of VR/AR strategy at SuperData Research
**www.superdataresearch.com**

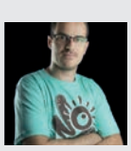
**MEANWHILE ON DEVELOP-ONLINE.NET**



**'Held to ransom by our own mechanic': Overcoming the technical hurdles of Hue**
bit.ly/2bWRD6s



**A game without words: The making of Ellipsis**
bit.ly/2ceFRpQ



**Mobile success lies with the audience, not just the game**
bit.ly/2c5gVwj



# GET REAL

Kiss' **Darryl Still** discusses how to manage expectations for a new franchise

Having persuaded head office of the publisher I worked for to retain their digital rights in the early days of the Noughties, I've witnessed first-hand the closing of the gap and eventual overhauling by the digital market over boxed retail, and with it the amazing re-emergence of the independent developer and micro-studio.

If it is true that the re-emergence of the indie game followed many of the patterns of those early days, it is also true that we are now witnessing many of the problems that occurred back then.

By default, with new multi-format engines the ways of making games became easier and easier for more and more people. The lower barrier of entry brought with it a much larger amount of games and a much more variable standard, with many taking advantage of the ease of self-publishing offered by the key vendors. This means there is a much larger choice for the consumer – and, with it, much more difficulty in discoverability.

The variation of standards heightened the consumer's risk of buying a dud, and they have become more reliant on recommendations and reviews from the community. Which makes community management a massively important undertaking to create success.

Greenlight and Early Access are two ways created to help with that. The Early Access route offers an opportunity to both build your community and earn vital revenue to feed into the development budget.

## DESIGN FOR REALITY

Long gone are the days when you could launch any new game on Friday afternoon and sit and watch its sales flow over its first weekend. Already, overuse and abuse of Early Access by some have left some users feeling disenfranchised with some of the titles within.



Still says that it is common for devs to request an unrealistic amount of money for an unproven franchise

> **There is a need for studios to think about what genres are popular – not only at the time they start development, but also when the title is scheduled to be finished.**

As ever, being flexible and able to adjust to the quick shifts and changes of the market is a key component of success, so I am a little surprised to be seeing quite a widespread lack of appreciation of this when receiving some studios demands and expectations. It is not rare to receive a good basic indie game design with a 12- to 18-month gestation period with a request for funding of over quarter of a million quid.

I honestly do not know of any publisher in the indie space that can afford that type of investment, with an 18-month 'hope' of starting to receive revenue for the project. That, frankly, dear reader, is not an independent game design or an independent game budget. Guarantees of return on that type of investment these days for a new and unknown franchise are written on very flimsy paper indeed.

Therefore there is a need for studios to think very carefully about what they want to create and what genres are popular not only at the time they start development, but what genres will be popular – and not overcrowded – when the title is scheduled to be finished.

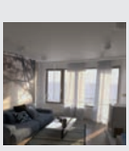
Careful budgeting is essential, and key to this is a realistic expectation of how the title will be funded, how that funding will affect the delivery schedule and so on.

The more you ask for, the more pressure there will be to deliver, whether industry-funded, crowdfunded or funded via revenue earned through Early Access. Hard business often intervenes in these situations and that can suck up the fun and creativity that the indie scene is all about.

So my key message in this piece is this: if you want to create an indie game, be realistic above all else. Be realistic of your financial expectations and be realistic of your creative expectations, whether you work with a publisher like us or go it alone. Be realistic of and take great care with the community reaction. They are the people who make or break your game.

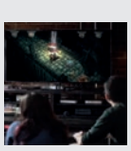
Realistic people end up exceeding their expectations much more often. ■

Darryl Still is co-founder and CEO of Kiss Ltd, an independent games label that specialises in digital titles **www.kiss-ltd.co.uk.**



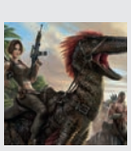
**PresenZ: Volumetric VR without a game engine**

bit.ly/2bL7uqh



**True role-playing: How PC/mobile cross-platform RPG Eon Altar gives each player an agenda**

bit.ly/2bH4FX3



**Ark: Survival Evolved - One Year On**

bit.ly/2biIjXF

To see all of our reader blogs visit: **www.develop-online.net** ■ Email **jbatchelor@nbmedia.com** to contribute your own blog



# GAMES **TAX RELIEF** DELIVERS

**Rick Gibson** discusses the promising results of a new study into the UK development scene and reveals the effect Brexit could have on finding funding

The latest TIGA survey of the UK games development industry shows healthy growth, hitting a new high of nearly 12,000 full-time developers.

Our data shows strong, but not record, headcount growth – 7.5 per cent over 12 months – and start-up rates. There's one big change that's driven industry growth since 2012 and a fascinating picture of the sector's ecosystem is emerging.

Many factors could be influencing growth. Most games categories have commercial opportunities but also face significantly rising competition and blockage signs in the online PC and mobile markets most British studios currently focus on. There's nothing particularly regional driving growth, which has been country-wide, leaving the South East as the largest cluster despite recent studio closures.

We've seen a welcome increase in finance availability for smaller productions but not obviously for larger ones. The new console generation is successful and VR is setting pulses racing, but the proportion of studio headcount working on console categories still falls every year, and the new VR studios aren't yet big employers. The war for skilled and graduate talent appears to be unchanged and Brexit's uncertainties threaten access both to finance and labour. None of these, alone or combined, explains four sustained years of growth.

The single biggest factor is Games Tax Relief. Repeated surveys have shown that medium-to-large companies, those best-placed to exploit GTR, have been largely driving headcount growth. Some use GTR to de-risk investment by angels and VCs, others to grow publisher studios, while work-for-hire studios are much more attractive to global publishers. The data is conclusive.

Over three years before GTR, growth averaged at minus 3.6 per cent. Over four years since GTR's announcement, growth averaged plus 7.1 per cent, rising to 8.7 per cent since pay-outs began in 2014. GTR is a stunning success for the industry.

## TAXING TIMES

The road ahead is still bumpy. Showing no signs of slowing, company mortality is up again – almost to 2013's record levels. Some of the 336 new games companies that started up between 2012 and 2014 have already failed. Global companies' investment criteria continue to shift, but the loss of nearly 500 full-time staff in 130 closed companies since 2014 barely dented headline growth, suggesting that the UK is efficiently recycling talent.

More of the workforce is freelance, but this adds flexibility and resilience to contracting studios. Access to finance is slowly improving but one in four independents – 43 per cent of studio headcount – still rely on publisher funding and there is no country-wide finance scheme in that tricky stage between prototype and soft launch. This problem is particularly acute in London, where nearly 24 per cent of new games companies were founded between 2014 and 2016 but who cannot access Creative England's production fund.

> **If the government were to cancel GTR, the sector would suffer a severe shock.**

Between 2008 and 2011, the UK sector had structural flaws. It suffered shocks when internationally-owned studios closed and independents reliant on global publishers collapsed, amplified by high costs and less self-sufficient business models. New companies started up and medium to big studios grew modestly, but they were undercut by poor access to finance, which reduced the attractiveness of the UK to publishers and investors alike. There were insufficient positions in surviving and new companies to soak up all the staff let go from closing companies, which led to an overall decline in the development workforce.

The UK now has a relatively well-functioning, sustainable ecosystem in which established companies grow healthily, start-ups continuously enter, companies of all sizes exit but experienced and graduate staff continually add to the talent pool. Creative and technical innovation thrives across a broader than ever development sector, and more industries are utilising games techniques and technologies.

A post-Brexit budget 'reset' could put this ecosystem at risk. If the government were to review GTR and cancel it, the sector would suffer a severe shock. By our calculations, 3,600 existing and potential jobs could be at risk by 2020. £365m of existing and new investment, £1.2bn in GDP growth and £481m in tax receipts could disappear. So let's not rest on laurels. The sector must fight again to remind the new government that GTR's economic benefits more than justify its cost. ■

Rick Gibson is a director of Games Investor Consulting, which specialises in the business of games **www.gamesinvestor.com**



**BACK IN THE DRIVER SEAT**
We speak to Reflections MD Pauline Jacquey
**P16**

**GOING HIRE AND HIRE**
Experts tell us why devs should consider a work-for-hire model
**P19**

**IF I COULD TURN BACK TIME**
Devs working on historical shooters discuss the genre's return
**P22**



# ID TURNS THREE: HOW HAS MICROSOFT'S INDIE REVOLUTION FARED?

When it launched in August 2013, Microsoft's ID@Xbox initiative marked a bold commitment to independent development by the platform holder. Three years on, **Matthew Jarvis** asks EMEA regional lead Agostino Simonetta about how the programme has evolved and what's next

Almost exactly three years ago, Xbox corporate VP Phil Harrison and Microsoft Studios head Phil Spencer took to the stage at Gamescom to pledge the Xbox One maker's dedication to indie development.

"We've been listening very hard to our development partners all around the world about what they want in a self-publishing platform," Harrison said. "We wanted to build a platform that really truly unlocked self-publishing on Xbox One."

Harrison went on to outline the programme's focal points: free development kits, tools and resources, including Unity, plus discoverability help for smaller developers on the Xbox marketplace. Headed up by director Chris Charla, ID@Xbox would put the platform back into the race with Sony, which had already been attracting smaller studios with initiatives such as the Sony Pub Fund.

> **The appetite is there and it's commercially successful for a lot of developers.**
> *Agostino Simonetta, ID@Xbox*

"This is great for the industry, this is great for gamers," Harrison concluded.



A lot has changed in the time since – Harrison left Microsoft early last year after three years at the company, and the Xbox One itself made a number of controversial U-turns before hitting shelves in late 2013 – yet ID@Xbox has kept the vow made all those years ago, bringing more than 250 games to Xbox, with over 1,000 currently in development. That's not to say the programme has remained stationary, however.

"There have been a lot of internal changes," observes ID@Xbox EMEA regional lead Agostino Simonetta. "We have changed the way we work and communicate with developers. If something doesn't work, the way we update people is changing." ▶

One prime example of ID@Xbox's evolution, Simonetta points out, is Xbox Game Preview, the Early Access-like service unveiled at E3 2015.

"The programme is not just for ID partners, but we do know that independent developers are the ones that have embraced the model," he reveals. "Most, if not all, of the titles that have launched in Game Preview so far are actually from ID@Xbox developers."

ID@Xbox's growing prominence has been reflected in the number of titles from the programme to make it on-stage at major industry events, including E3; *We Happy Few* was presented at Gamescom last year, and ended up becoming one of the show's most talked-about titles, in line with major triple-A blockbusters.

"People are really excited about those kinds of products," Simonetta effuses. "It's not just an acceptance of independent games – it's that more and more people want to play these experiences. Across ID@Xbox, first- and third-party titles from independents, hundreds of millions of dollars have been generated. The appetite is there and it's commercially successful for a lot of developers. It's a good time."

Despite the programme's triumphs grabbing headlines, Simonetta insists that many of its greatest achievements take place behind the scenes.

"Stuff like the fact that this year we decided to do a lot of ID@Xbox press events at a local level in Europe," he explains. "We still do the English events – Gamescom, EGX, Rezzed – but we are doing a lot of local events. It's an evolution of the way we promote the programme. I did an event in Italy attended by 40 journalists with 11 ID@Xbox titles. We did one in Madrid where I ended up on the mainstay channel on the news at 12 o' clock. There is a lot of interest in ID and what we are doing. That's an evolution of the brand. Last year, we focused a lot more on developer events; this year, we've generally done a media event and a developer event.

"There are a lot of changes like this. Some are obvious to everybody, like Xbox Game Preview, but a lot are behind closed doors, deciding how we make the programme better for people."

## BLURRING LINES

Just as ID@Xbox has evolved, the titles released through the initiative have advanced. These includes sequential projects from returning developers, with *Limbo*/*Inside* studio Playdead, *Contrast*/*We Happy Few* creator Compulsion and *Worms*/*Overcooked* outlet Team 17 all coming back for a second release. Many of the games have similarly grown in ambition, advancing from early platformers to the innovative mechanics and artistry seen this year in titles such as *Superhot* and *Inside*.



*We Happy Few* was shown on-stage at last year's Gamescom, and received as much buzz as triple-A reveals

> **We've moved beyond the idea of 'indie'.**
> *Agostino Simonetta*

"We are seeing independents tackling a lot more variety of subjects and themes," Simonetta suggests. "People are maturing, the old ecosystem is maturing, so people understand there are a lot of original opportunities.

"The line between what 'triple-A' and 'independent' mean is blurring. In ID, we always talk about independent developers – we've moved beyond the idea of 'indie', it started having a negative connotation. It's a word that had an importance, but we need to move on."

Simonetta adds that the equal treatment of ID@Xbox and blockbusters extends from the E3 stage to the Xbox One marketplace.

"When you look at our stores, you have *Inside* and *Solus Project* and whatever triple-A titles – you can't really tell," he presses. "The lines are blurring: it's just entertainment.

"We made a commitment to everybody at the launch of the platform that a game is a game is a game. When you look at the dashboard, you're reminded that this applies to anything – it doesn't matter what the product is."

The growing success of independent titles has seen a number of digital-only titles eventually make the jump to a physical release, with Simonetta praising ID@Xbox as partially responsible for the warming relations between developers and publishing partners.

"What we have seen over the last few years is when ID started or self-publishing started in general, if you mentioned you could work with a publisher to a developer, the developer would not have been very happy or impressed," he recalls. "Now, things have changed – we have a lot of ID@Xbox developers who are self-publishing. A lot of them are self-publishing digitally but then working with partners at retail, so there are a lot of titles that are making their way to retail.






"This is just another thing we are seeing change as we mature as an ecosystem and industry; people are realising there are benefits. The relationship a developer has with a publisher today is very different to the relationship they held 10, five or even three years ago."

## CHANGING IDENTITY

ID@Xbox was announced nearly three months to the day before the Xbox One console was released. During the same press conference, Phil Harrison made the ambitious prediction that "every Xbox One retail device will eventually become a development kit". It would take until March of this year before that dream became reality with the launch of Xbox Dev Mode.

While the platform remains in preview for the time being, the implications of allowing anyone to develop a game using their home console could be huge.

"Giving people like my daughter or teenagers the ability to buy an Xbox One at retail and use that to develop, that's one of the greatest things," Simonetta enthuses. "Developers can start there and if they want an Xbox One dev kit then we can provide that. For me, the most exciting thing is giving people the ability to tinker with something that is in their living room."

Making a game creation platform so easy to access could potentially set in motion an avalanche of wannabe Xbox developers – and a subsequent rush of ID@Xbox applicants – but Simonetta is quick to point out that simply using Dev Mode doesn't mean free entry into the club.

"Whether you use a dev kit or a retail unit, the pipeline to get to the store is the same," Simonetta details. "You need to apply for ID and all the rest. Only ID@Xbox-approved partners will be able to publish the game they create on Xbox One."

Opening the doors to smaller creators but ensuring they have something valuable to offer before they enter is an approach Microsoft has maintained since ID@Xbox's launch, when it clarified that it was looking for "professional independent game developers who have a proven track record of shipping games on console, PC, mobile or tablet" rather than complete newcomers. With Dev Mode sure to bring with it a slew of plucky first-timers with less polished efforts, does Simonetta plan to loosen ID@Xbox's entry requirements?

> **We're reaching a point where creating a piece of entertainment is possible for everybody.**
> *Agostino Simonetta*

"We have one-man bands doing games today," he insists. "There have been plenty of titles that have been created effectively by one or two people – you often get a developer and an artist. That's happening today.

"What has changed over the years is that the development tools – the Unity shop for content or people selling their graphics online – really have changed all this for the simplicity of creating a game. Not necessarily a great game, but the entry barriers are so much lower now. We are already in an era where one or two talented people can do something extremely polished. Maybe five years ago or three, at the beginning of ID, it was different. But now we are seeing an incredible level of quality just from one or two individuals.



"Now that the platforms are open, we have digital distribution and the tools to create games are accessible to pretty much anyone who has an intention to create a game, we are the same as music or movies or book-writing. We are finally in a position where this is in line with the other arts. That's what we've missed, until recently, to create art – to liberate the tools and allow anybody to create experiences.

"If you want to write a book and you're very clever, the tool is not the barrier; the barrier is your ability to write. Now, with games, we're getting very close to that. There are some technical barriers, because it's a technical field, but we're getting to the point where creating a piece of entertainment is possible for everybody."

## NEW TOOLS

Given ID@Xbox's seeming dedication to removing the barriers between creators and the means required to make games, it may seem apt to expand the selection of tools included for free in the programme beyond the current selection of just Unity, but Simonetta remains coy on the subject.

"We're always discussing ideas, you never know," he answers. "At the time when ID was set up, 99 per cent of the titles were in Unity. But over the last few years a lot has changed in terms of the business model middleware providers have. Back then, it was at cost all the way; now, it's a very different model.

"For some time, platforms played a role but then a few years down the line the entire industry changed and something you did three years ago is no longer needed. We're always trying to find a way to help developers – you never know what the next thing is going to be."

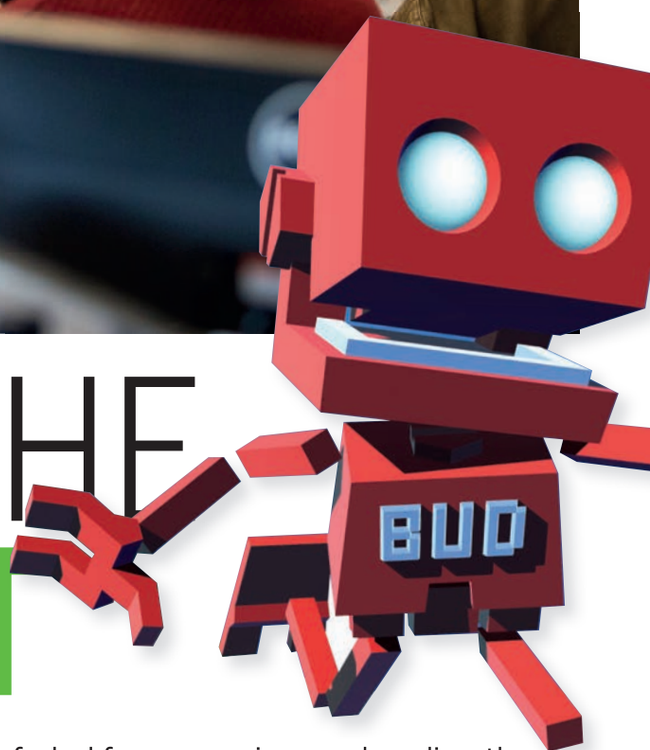
With the nature of independent development remaining perpetually protean, it may seem an impossible task for ID@Xbox to cater to every developer's situation – but Simonetta remains confident that the programme is taking the right steps to ensure its future is as prosperous as its work to date.

"The problem is everything changes so fast that we're not entirely sure what the next big thing is going to be for us or anybody else," he admits.

"A big focus for us now is enabling developers to bring their creativity to Xbox One and Windows 10. We see that as a very important for Microsoft as a whole and ID@Xbox has a big part to play. In the immediate future that has a lot of focus, but the undertone and the philosophy of the programme is to deliver the best possible service to our partners and make their lives easier.

"It can never be completely easy, and we can never promise never to make mistakes – but we do promise to always listen and change, and keep the philosophy we've had since the beginning." ■






# BACK INTO THE SPOTLIGHT

Once renowned as the creator of Driver, Reflections subsequently faded from prominence, handing the limelight to its sibling Ubisoft studios. With the success of Grow Home and The Division, the developer has returned to reclaim its fame. **Matthew Jarvis** sits down with MD Pauline Jacquey to find out how

Twenty-five years ago, Reflections was the *Shadow of the Beast* studio. Two decades ago, it was the creator of *Destruction Derby*. 15 years back, *Driver* defined its output, with the series continuing to be synonymous with the studio's name for the following decade.

Yet, for almost five years after its last *Driver* instalment, 2011's *San Francisco*, the developer seemed to lose its identity. It contributed to a kaleidoscopic selection of parent publisher Ubisoft's biggest releases – *Just Dance*, *Far Cry* and *Watch Dogs* – but only ever in a supporting role. It seemed that Reflections had gone from being a singular force of innovative development to another cog in the corporate machine.

Then, in 2015, *Grow Home* arrived. A quirky lo-fi platformer all but bereft of story but boasting oodles of charm and a unique climbing mechanic, it was beloved by critics and players alike. Birthed from Reflections' internal incubation programme, it marked the first game on which the studio had led development since *Driver: San Francisco*. This was followed by the announcement that Reflections would be playing a major role in the development of Ubisoft's ambitious MMO shooter *The Division*, contributing a large portion of the title's expansive New York environment, as well as multiple main missions.

"We are at a tipping point in the history of Reflections," observes Pauline Jacquey, who took charge as MD in early 2013. "It is a tipping point where what we do has got a lot of value, not only for us internally but for gamers and for Ubisoft."

With Reflections' stature growing under the Ubisoft umbrella, has that opened the door for the studio to break out further from remaining a development bridesmaid?

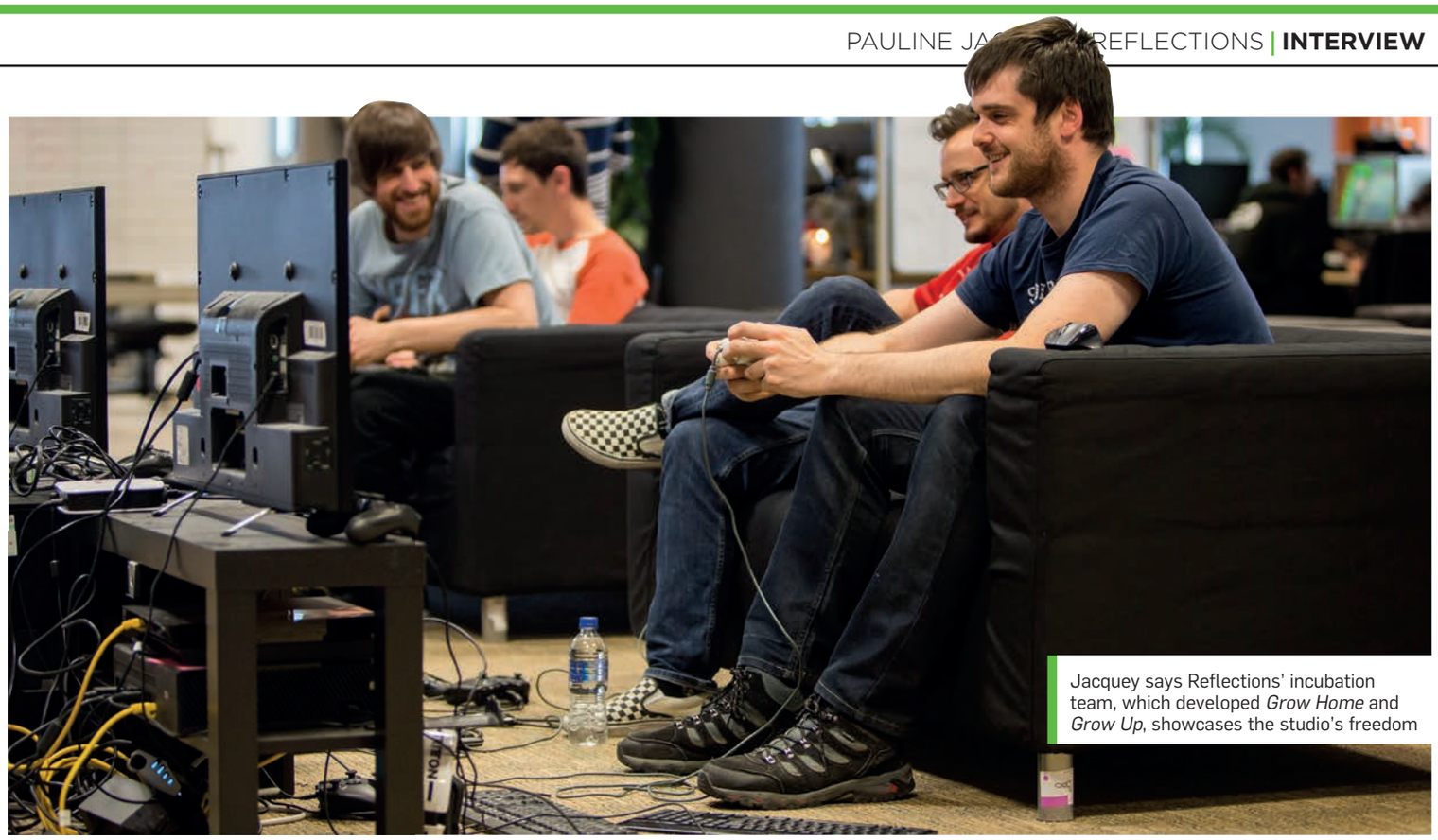
"I don't think it means we have more of a say," Jacquey admits. "Maybe we're seen a bit more as a model, when before we were not. The head of Ubisoft is globally very decentralised; we don't have a very powerful head office and they don't tell us what to do. This is true, regardless of studio size. It's even truer when you don't work on the biggest triple-As – there is actually more attention on what you do.

"What has changed is that I'm now getting calls that ask things like: 'How do you do this? Because this is interesting and I'd like to duplicate this in my studio.' Which was maybe not happening two or three years ago. This is going back to what Reflections was 15 years or a decade ago: a pioneering studio."

## REFLECT ON YOURSELF

In line with Reflections' journey to redefine its external perception, Jacquey highlights her efforts to revitalise the internal operations of the studio.

"It's changed a lot, and I hope it's for the better," she laughs when asked about her influence. "Not that we do everything perfectly, but there's more transparency today in Reflections than in most companies that I know about. That means that everything can be



Jacquey says Reflections' incubation team, which developed *Grow Home* and *Grow Up*, showcases the studio's freedom

discussed in a very open, adult manner, including when the studio is at a loss or something is not successful. I don't make a decision at a studio level without consulting a lot of guys, so it's not top-down."

Freedom is a philosophy that Jacquey is keen to highlight as running throughout Reflections.

"This translates to our incentives, too," she continues. "Instead of organising people's fun, we have £25,000 for the year that we distribute. They do what they want.

"From a business standpoint it makes sense, because it doesn't cost much more than if you were doing it yourself."

## THE SECRET STUDIO

While Jacquey is confident Reflections' existing staff are there to stay, its position behind the scenes has made it difficult to attract fresh talent.

"People don't know enough, which means we have challenges hiring," she reveals. "There's a deficit of image with Reflections that occurred when we stopped being a one-game studio attached to *Driver*. It felt a bit like a void, you know? Whereas our studio culture, values, methods and technology have got even more worth than what the image of a game brings you.

"It's important that we are known for who we are rather than just having shipped a franchise. I want to emphasise who we are and our values, and what we're trying to achieve here."

Reflections' drive to maintain the internal strength of its workforce has exacerbated its perception problem.

"We're very demanding when we select our profile, so that means some hirings take like a year or a year and a half," Jacquey confesses.

The Newcastle-based team takes on graduates straight out of the local universities – but finding experienced devs remains a struggle.

> **I'm not looking for scale here. I'm really looking for talent.**
> *Pauline Jacquey, Reflections*



"We work very closely with a network of universities," Jacquey details. "It's relatively easy for us to hire for junior positions. It starts to be a bit more complicated when we're trying to hire people that have 10, 15 or 20 years of experience.

"I'm really keen to build up the expertise of the studio – I'm not looking for scale here, I'm really looking for talent. So that makes hiring a bit more complicated. We're trying to attract international senior and experts who like the culture and what we do here and the way we do things."

## DRIVING FORCE

With *Grow Up* expanding on the success of its predecessor and Reflections leading creation of *The Division*'s first major expansion, *Underground*, the studio continues to recover its lost prestige – albeit in new forms a world away from its driving game legacy.

"What's interesting is that it's a very different approach to games than our legacy of vehicular realisation but, actually, the foundations are the same," Jacquey retorts.

"It's physics-based – we're really good in physics – and some of our programmers who are working on the toys in our incubator are exactly the same that worked on the AI behaviour of the main vehicles in *Driver: San Francisco*.

"In terms of the development process, the biggest difference is that this incubator is working as if they were developing an onion. At any point in time, the onion is an onion – it's a product which could be shipped – and we decide if we want to add a layer and make it bigger or not."

With its developers' passion taking Reflections to unexplored realms, is there any chance the studio will return to the franchise that made its name?

"We are not working on *Driver*," Jacquey states definitively. "We love the franchise – it is in everybody's hearts – but it's not like an obsession, like: 'Oh, when we will be allowed to work on *Driver* again?' If we wanted to, we would and we could. Nobody's telling us not to do it.

"The other thing is that something different but very interesting could come from our three strands – our legacy in driving, our work on titles like *The Division* and our *Grow Home* incubator team – kind of cross-pollenising and talking to each other. I don't know when this will happen, but I'm pretty sure it will lead to something that's very special." ■

# SCALING UP YOUR ART?

## For all your Game Art



VISIT US @

WWW.CORED.UK

INFO@CORED.UK

CORE DESIGN STUDIOS ™




D3T has worked on a number of hit franchises, including *Super Stardust*

# WHO YOU GONNA CALL?

When developers need extra staff, time and resources, work-for-hire studios can ensure they achieve their creative vision. **James Batchelor** finds out more about the full impact these firms have on games today

The scope of development has grown so dramatically in the last decade that more and more blockbuster titles are being developed by multiple studios.

While a handful of publishers will have the luxury of having a dozen studios around the world that can contribute to a single project, many require the assistance of work-for-hire studios: developers that thrive on helping larger companies with their projects.

If there's any doubt over the demand for work-for-hire devs, you need only look at some of the studios operating like this around the UK.

Red Kite Games' MD Simon Iwaniszak, claims his studio is "living proof the work-for-hire model is most definitely still viable".

"Not only is it enough to sustain a studio, it can also facilitate steady growth if approached correctly," he adds.

"Over the past five years, Red Kite has grown from three developers to just under 20 and we're still looking to expand. Since our formation, we've worked for the likes of Activision, Sony, Ripstone, Double Eleven and You42. Our struggle to take on more work-for-hire due to a lack of availability is a headache that we're happy to have."

> **Team diversity, professionalism, scale and skillset are absolutely key in work-for-hire.**
> *Jamie Campbell, D3T*



Similarly, Develop Award winner D3T is purely a work-for-hire studio, resisting the urge to develop its own projects. Last year, the firm reports, its revenue and profits rose by 150 per cent – but success is far from guaranteed.

"Be aware that building an excellent reputation in work-for-hire is hard," says co-owner and commercial director Jamie Campbell. "Team diversity, professionalism, scale and skillset are absolutely key. Client confidentiality is paramount, so we put the client first and include a clear aftercare package. For clients, that continuity of service is vital.

"We find WFH to be rewarding in its own right. Over the last five years, we've been involved in some of the most exciting innovations the industry has seen. Some we can shout about, some we can't. But the skills that our team has acquired developing those projects are right here in-house."

## CREATIVE CONTRIBUTION

It's easy to think that working on another studio's project robs developers of the opportunity to be creative, but experienced work-for-hire devs say this is certainly not the case.

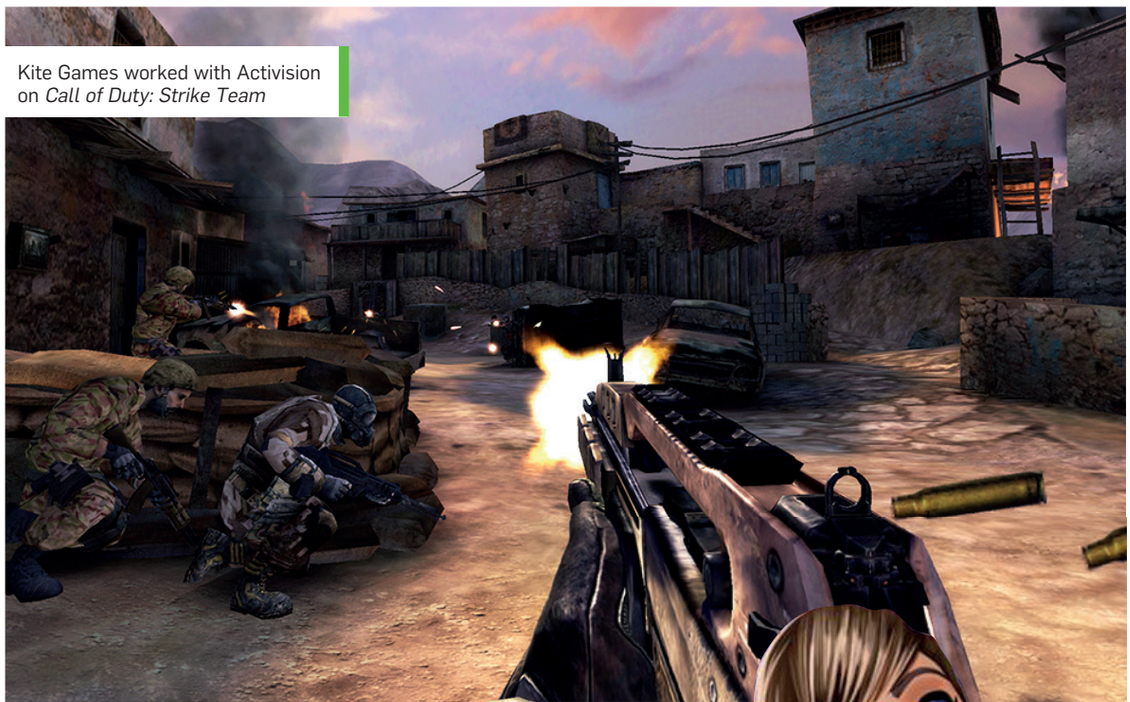
"If you are concerned about losing creative input by going for work-for-hire, don't be – especially in the free-to-play space," says Nick Harper, COO at Exient. "Often we will receive a request-for-proposal, but these really range from very specific to very open.

"Then it really depends on the concept you develop internally – if you come up with something exciting that happens to be a departure from the original brief, most clients will usually go with it as they are always looking for innovation."

Iwaniszak adds: "A programmer who provides an elegant code solution to a problem or bug fix is just as creative as the designer who crafts a fun gameplay mechanic or the artist who breathes life into a spectacular environment. We found a way to significantly reduce a game's build time on a recent project – hardly glamorous, I know, but extremely useful and appreciated nonetheless.

"Work-for-hire is often undeservedly viewed as 'just do what you've been told'. But supporting Activision on *Call of Duty: Strike Team* and, more recently, Sumo Digital on several of their projects, we were able to work with them creatively. Ripstone even trusted us to do complete a full art pass on *Extreme Exorcism*.

"It's important to realise that you've been brought in to do a job. The potential for creativity on a work-for-hire project is directly linked to the strength and experience of your team."



Kite Games worked with Activision on *Call of Duty: Strike Team*

## PICK OF THE CROWD

Securing new projects is perhaps the most important task for a work-for-hire studio, particularly if they have no plans to work on their own IP. With a growing number of WFH firms out there, competition is becoming fierce but there are ways to improve your chances of attracting new clients.

"The key requirement is confidence in delivery, so my advice is to be honest with your game pitch and design, and costing numbers," advises Harper. "It's a short-term strategy to sell something big just to get the contract. If you then struggle to deliver, you'll only lose the confidence of the partner for any future work. So consistency and track record are probably the key components."

Iwaniszak adds: "Don't underestimate the importance of having a good website, portfolio and showreel. This is essentially your shop window and it will ultimately be what catches the eye of a potential partner. Having a diverse portfolio helps immensely in securing high quality work-for-hire. For example, we have helped to develop games across all major platforms from mobile to console and PC, using Unity, Unreal and various in-house engines."



> **Don't underestimate the importance of having a good website, portfolio and showreel.**
> *Simon Iwaniszak, Kite Games*

Campbell stresses that attending to your client's needs is also important. In his words, they should be placed "at the very centre – not just throughout the project, but also in aftercare".

"Being purely WFH means we can offer that constant presence," he adds. "Our availability is not dictated by our own internal product development schedule. Diversity is also a key component – being able to offer a client exactly what they need when they need it. And flexibility. Sometimes a client wants full IP development; others may need problem-solving on a single element. Work-for-hire is about working flexibly around the client and enabling the client to get where they want to be."

Given that you'll be handling other companies' IP and assets, security is a major priority – particularly if you want to work with the studio in question again. You also need to be highly flexible, since you'll be working on another team's schedule.

"If you're not in a secure office with a decent internet connection and appropriate hardware, you're severely going to limit the potential for high quality work-for-hire opportunities," says Iwaniszak. "A prospective partner will want to see that you can either work completely independently or integrate seamlessly into their day-to-day development processes."

Harper adds: "Sudden changes of strategy can often take the team by surprise. There will be many factors at play that the other company has to deal with, and often the development team is unaware of those. So out-of-the-blue, you might have a release date brought forward, or suddenly this thing is more



Exient is making a *Dancing with the Stars* mobile game based on the TV show

important than that and you have to be prepared to react quite rapidly."

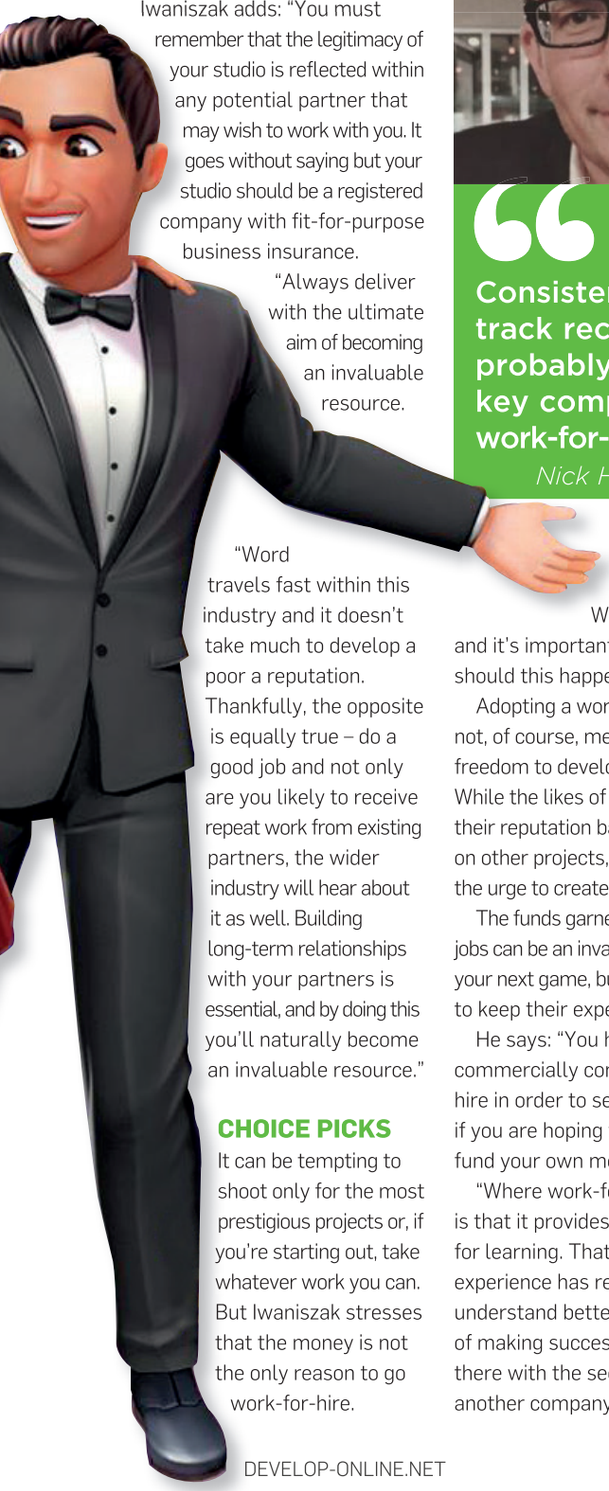
## THE RIGHT REP

Above all, work-for-hire studios need to present themselves as professionals and operate efficiently. This is not only for the benefit of the projects they contribute to but also to build their own reputations and, by extension, improve their chances of securing further work.

"Excellent project management is essential," says Campbell. "Talking with clients, listening to clients and delivering for clients are essential components of WFH."

Iwaniszak adds: "You must remember that the legitimacy of your studio is reflected within any potential partner that may wish to work with you. It goes without saying but your studio should be a registered company with fit-for-purpose business insurance.

"Always deliver with the ultimate aim of becoming an invaluable resource.



"Word travels fast within this industry and it doesn't take much to develop a poor a reputation. Thankfully, the opposite is equally true – do a good job and not only are you likely to receive repeat work from existing partners, the wider industry will hear about it as well. Building long-term relationships with your partners is essential, and by doing this you'll naturally become an invaluable resource."

## CHOICE PICKS

It can be tempting to shoot only for the most prestigious projects or, if you're starting out, take whatever work you can. But Iwaniszak stresses that the money is not the only reason to go work-for-hire.

"Ask yourself: is the project with a high profile partner?" he says. "Is it a cool game or IP? What transferable knowledge will be gained? You should accept work-for-hire projects that will push your studio forward and not focus purely on what's going to pay the bills.

"Diversify who you work with. Not only will this improve the skillset of your team and help in the creation of your portfolio, it'll also ensure that your eggs are in multiple baskets. Work can quickly dry up and it's important to have options should this happen."



> **Consistency and track record are probably the key components for work-for-hire studios.**
> *Nick Harper, Exient*

Adopting a work-for-hire model does not, of course, mean giving up the freedom to develop games of your own. While the likes of D3T are happy honing their reputation based on their influence on other projects, some may still feel the urge to create something brand new.

The funds garnered from work-for-hire jobs can be an invaluable way to kick-start your next game, but Harper urges studios to keep their expectations in check.

He says: "You have to be commercially competitive in work-for-hire in order to secure the projects, so if you are hoping that a WFH gig will fund your own mega game it's unlikely.

"Where work-for-hire really benefits is that it provides a secure roadmap for learning. That knowledge and experience has really helped us understand better the crucial aspects of making successful titles, but we got there with the security blanket of another company funding us." ■

## CREDIT CHECK

Something that may frustrate newcomers to the work-for-hire model is the inconsistent ways their contributions will be acknowledged. For some projects, all studios involved receive full credit, while others may see external contributions kept largely under wraps for legal or NDA-based reasons.

"A degree of anonymity means being able to work on amazing projects across the board – even with clients who may be in direct competition within the marketplace," retorts D3T's Jamie Campbell.

"Confidentiality is part of the territory. But where credit has been given, it would be great to see more recognition from within the industry. For WFH to move from being seen as the industry's 'poor relation', we need the industry to celebrate WFH contributions. Maybe that would encourage clients to shout about it more too."

Exient's Nick Harper adds that while end users might not be aware of a WFH studio's input, it may still be noticed by potential clients.

"We usually get our names in the credits but it has been a struggle to be known as the developer of titles," he says. "Some publishers have a policy of not recognising any developers, so you have to just go with the flow a little bit."

Red Kite Games' Simon Iwansizak says studios should be a little more assertive: "You should never be nervous to ask about being credited on a project, although you should also be realistic in your expectations.

"It's a studio's own responsibility to promote itself in relation to the games that it's helped to develop and, provided that a partner isn't actively trying to stop this, it shouldn't be a problem. If you find that a partner is actively trying to stop this, I simply wouldn't work with them again."





# BACK TO THE PAST

As Call of Duty looks ahead to the future of warfare, EA DICE is headed back in time with the First World War-set Battlefield 1. **Matthew Jarvis** speaks to smaller studios working on historical shooters about taking inspiration from the past, balancing realism with fun and tackling real-life tragedy

As the opening of *Fallout* immortalises, war never changes. War video games, however, do. The last decade saw the 20th-century warfare of early *Medal of Honor*, *Battlefield* and *Call of Duty* titles deposed by battles set in the 21st century, often in new instalments of the same franchises.

Most famously catalysed by the Middle Eastern setting of *Call of Duty 4: Modern Warfare* in 2007, first-person shooters have since edged further and further beyond their contemporary boundaries, leading to a movement into near-future and even sci-fi scenarios. This has broken the FPS genre in two, as other titles are now returning to the historical background of the World Wars, Vietnam and the Cold War.

"The main drive comes from the indie community, which has been growing rapidly from the former modding communities with the rise of the affordable game engines," proposes Jos Hoebe, co-founder and CEO of Blackmill Games, which is developing *Verdun*, based on the eponymous WWI battle.

"Factors include, firstly, the desire to return to no-nonsense gaming, meaning these historical scenarios have a clearer and fixed set of well-known options, such as a time without killstreaks. Secondly, fatigue with bombastic over-the-top future scenarios and, lastly, because this is most likely a cyclic process where the new generation of graphical capabilities, such as PBR, photometry and mo-cap tech, can do a significantly better job in representing these historical scenarios."

> **We miss the classical feel of what studios like DICE and Infinity Ward were built on.**
> *Joe Brammer, Bulkhead Interactive*



Bulkhead Interactive is working on *Battalion 1944*, which raised more than £300,000 on Kickstarter and is pitched as "a return to the core of classic multiplayer shooters".

"*Battalion*'s ethos isn't 'we're missing WW2 games' – it's more than that," elaborates senior producer Joe Brammer. "Our ethos is that we miss the classical feel of what great studios like DICE and Infinity Ward were built on, and the grounded gameplay of *Battlefield 2* and *Call of Duty 2*."

## RELIVING THE PAST

Even historical titles that play more fast and loose with their setting, like *Battlefield 1*, must maintain a certain level of accuracy to sustain their immersion. But they must also be fun.

"The challenge is to identify and work with the rules, constraints and building blocks that the historical scenario offers and find a creative solution to creating a fun game," Hoebe explains. "The pace of the game and reality of the scenario should align at least somewhat to be considered an authentic experience."

One major element of capturing the atmosphere of the World Wars is faithful level design.

"Especially at Verdun, the remnants of the war are still sticking out of the ground," Hoebe reveals. "We tried to come as close as possible to recreating this in a respectable way in a multiplayer environment.

"We did a lot of background research; we visited the battlefields and gathered significant resources. For the level design we wanted to capture the essence of each of the main sectors of the Western Front."

Brammer seconds the importance of visiting locations in person.

"We decided we could still produce incredibly high fidelity and realistic-looking environments by travelling to Normandy, taking thousands of photos and creating our own PBR material library," he says. "We built a team whose sole job is to create shaders that we can use on our architectural and environmental assets.

"Although our level design is inspired by the way French streets look and feel, we won't be creating one-to-one real levels from them; it just wouldn't make for great gameplay."

This balance between reality and accessibility extends to the armaments that players use, too.

"90 per cent of the weapons in modern shooters are automatic,"





*Battalion* aims to recapture the gameplay feel of early *Call of Duty* and *Battlefield* titles

Brammer details. "The core weapons of WWII on each side balance themselves off against each other really well already."

Hoebe expresses that, for *Verdun*'s weaponry, his team wanted to "make sure every little screw and detail was exactly the way it was".

"We worked with historical weapons experts who could point out every quirk," he recalls. "Needless to say, this was a relatively expensive undertaking as there were generally a lot of iterations involved between the animators using tools like Maya and Modelers processing the feedback."

Blackmill's desire to bring the reality of combat to players' experience also extended to more disturbing features.

"To enhance the credibility we found that a functioning and realistic gore system was necessary," Hoebe recounts. "We opted to let a significant amount of killed characters not die instantly, so they linger on the battlefield. With this, we are trying to make the experience as a whole more 'raw' and unfiltered."

## LEST WE FORGET

While all forms of media featuring violence can result in controversy, those based on real-life suffering and loss require particular sensitivity. This remains especially pertinent when attempting to design a 'fun' game without trivialising the grave subject matter.

"The horrible human cost endured during these battles are subjects which require a delicate approach," warns Hoebe. "Certain wording or even in-game implementation must explain your specific interpretation of events and allow people to put them into the proper context."

Brammer agrees that the far-reaching impact of war, especially with the World Wars, should give devs pause for thought, but suggests that departing far enough from reality can avoid potential controversy.

"It's difficult, so be sensible," he opines. "One of the only reasons *Call of Duty: World at War* got away with limbs exploding was because the rest of that game was so ridiculously disconnected from WWII – see: red dot scope on a Thompson."

However, Hoebe issues a caution that the reception to a more unorthodox approach can pivot on the understanding of a developer's audience.

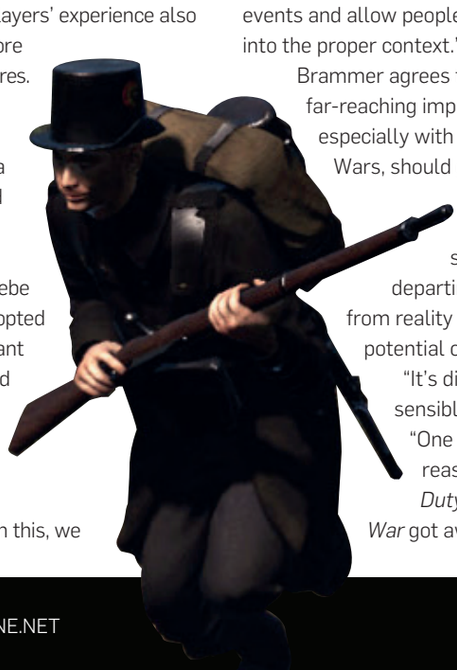
"Great backlash would've ensued if we added something that made no sense or twisted the theme to such an extent that it no longer passes as a credible creative interpretation of the events," he suggests. "In a modern or future setting the context is mainly driven by fiction and this allows for a greater, if not infinite, pool of possible artistic choices you can make while maintaining credibility and not breaking the immersion."

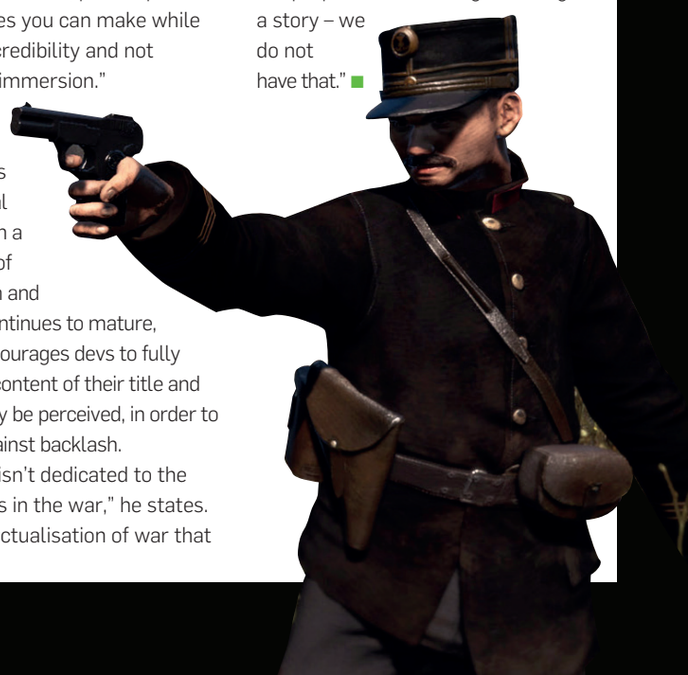
As games' ability to portray events – both fictional and real – with a greater level of detail, realism and immersion continues to mature, Brammer encourages devs to fully consider the content of their title and the way it may be perceived, in order to safeguard against backlash.

"*Battalion* isn't dedicated to the brave soldiers in the war," he states. "It's not the actualisation of war that films like *Saving Private Ryan* are. It's a game, a piece of entertainment and a part of history. It would be more offensive for a World War FPS to claim to be dedicated to or in memory of the fallen soldiers and civilians.

"But we do have constraints we are very strict on. We have absolutely no interest in showing or discussing anything relating to the SS or the Holocaust. We believe it is totally immoral for an FPS to do so.

"One day, somebody will make the 'Auschwitz VR experience' and it will be excellent, if done tastefully and responsibly. But that would be with the purpose of educating or telling a story – we do not have that." ■







# WINNERS FOR HIRE

Commercial director **Jamie Campbell** lifts the lid on Develop Award-winning outsourcing studio D3T

**How did you get started?**
Steve Powell and I worked together at Rage, Juice and THQ and we formed D3T five years ago. We know the sector can be volatile and we wanted to find a different way of working, offering security to our employees while continuing to do what we love and above all, providing world class development services.

In a nutshell, we develop your games. We are a work-for-hire software development company. We don't develop our own IP so there's no conflict of interest and we are 100 per cent focused on delivering for our clients.

**How have the past 12 months been?**
It's been a good year for us. Our team has more than doubled from 14 to 32. We've delivered some big gaming projects like *Sega Mega Drive Genesis Classics Hub*, *Super Stardust Ultra* and *Invasion Zone* – plus, we contributed to *The Witcher III: Wild Hunt*, for which we won our Develop Award.

We've moved to new premises as we outgrew out last place and our revenue and profits are up 150 per cent on last year. As I said, a good year.

**You won the award for Creative Outsourcer: Visual & Development. What makes you special?**
We have extremely high quality standards and just begun expanding our QA team. Also, our scale means we can be a persistent supplier of WFH services – we're there when you need us, with a full aftercare service.

Being purely work-for-hire is hard. Unless you have a team as good as ours, it would be a scary place to be. We've built a solid reputation as a technical consultancy – doing the really difficult jobs and allowing studios to focus on development.

We possess vast levels of experience. There's currently 244 years of dev experience at D3T, which is one of the reasons we continue to place such emphasis on mentoring.

> **We don't develop our own IP so there's no conflict of interest.**
> *Jamie Campbell, D3T*

**What has been the best project you've worked on?**
All our projects are equally important, regardless of size. But we loved the work we did on *The Witcher III* – we can't speak highly enough of the CD Projekt Red team. We've done some really fun kids stuff for the BBC, too.

We've had several pivotal projects where we identified the opportunity for us to scale up our permanent team. The latest one we can't talk about yet, but it is an extremely exciting and challenging proposition.

**What would you love to work on?**
When the company was founded five years ago we had a list of dream clients and IP we aspired to work with. It's amazing that we actually do get to work on some of those projects now.





Our team all have extremely varied tastes in games – there would be trouble if we tried to pick a single title.

**What are you plans for the rest of the year and 2017?**
We're recruiting at the moment and will continue throughout 2017. Alongside this, we are increasing our graduate engagement, as there's some fantastic talent coming through our universities. When we hit our growth target, we will be looking to move premises again, too.

We are actively exploring other markets, particularly the USA, and are quite excited by our recent meetings. But our overarching aim is to continue to be seen as a world-leader in work-for-hire and contract-based game and technology development. ■

**LOCATION:** Runcorn, UK
**BEST KNOWN FOR:** The work-for-hire firm has contributed to many projects, both games and non-games, and was responsible for the PS4 port of *The Witcher III*
**WEB:** www.d3tltd.com
**PHONE:** +44 (0) 1928 575742
**EMAIL:** contact@d3t.co.uk
**TWITTER:** @d3tLtd
**FACEBOOK:** facebook.com/d3tLtd

# CROSSING THE LINE

Fresh from its triumph as this year's UK Game of the Show at Gamescom, PaperSeven studio head Alice Guy discusses the developer's highly propitious first-person drama Blackwood Crossing

In an industry continually striving for greater maturity, it's rare to hear a studio actually describe a game as 'grown-up'. Yet, this is the potentially contentious term by which independent outlet PaperSeven has opted to define its upcoming PC and console debut *Blackwood Crossing*.

"It's by far the most in-depth and complex project we've worked on, which is why we often refer to it as our first 'grown-up' game," explains studio head Alice Guy. "The budget's bigger. The team's bigger. We've had to have more specialist roles involved."

The first-person tale struck a chord with judges at this year's Gamescom, picking up the UK Game of the Show award, hosted by industry trade body UKIE, for being the best unreleased British-made title at the show thanks to its strong narrative hooks and evocative style.

"We had long wanted to develop a story-driven game, and for that story to focus on orphaned siblings," Guy recalls on the game's origins. "Indie, quirkier titles such as *Gone Home*, *Stanley Parable* and *The Vanishing of Ethan Carter* were going from strength to strength, but we felt the core stories could afford to come to the fore even more and the player's emotional attachment to be stronger."

## FLYING THE NEST

While *Blackwood* may mark the studio's maturation, PaperSeven is far from green itself, comprising senior devs with over 50 years of shared experience from *Split/Second* outlet Black Rock Studio.

"It certainly helps our general production processes and efficiencies – for example, understanding how best to work with external partners and the importance of bringing in experts when needed," Guy says of the indie's triple-A legacy. "It also gave us a solid understanding of publishing requirements, working with localisation and QA teams, and so on – and gave our funders confidence in moving ahead with the project. Lastly, it just naturally pushes us to deliver the highest level of quality we possibly can and gives us a belief in our ability to deliver."

> **Blackwood Crossing's the most in-depth and complex project we've worked on, which is why we refer to it as our first 'grown-up' game.**
> *Alice Guy, PaperSeven*



Despite the team's proficiency, moving to an unfamiliar type of game and going it alone did throw up new challenges.

"We hadn't done in-depth character animation before, so we had to bring that skill in-house," Guy reveals. "Luckily, we worked with an excellent animator at Black Rock who became available and we snapped him up.

"VFX also feature heavily in the game, and we had to learn some of that stuff as we went on.

"As a studio, our skills in story and script development, as well as vocal performance, have massively increased. As has our experience in marketing and demoing the game.

"The biggest technical hurdle has been developing a story and puzzle system which can be used to try out new dialogue and gameplay ideas. We've used a combination of a visual scripting system and an event sequencer to decouple it from the game code so that designers and coders can quickly make new puzzles and story threads without writing any code. This has meant that anyone on the team can contribute to these parts of the game."

Fortunately, at least one element of *Blackwood* was very familiar to the devs: the engine.

"We've used Unity ever since starting the studio in 2011 so the team's really experienced in it," Guy explains. "We love its flexibility when developing for multiple platforms, allowing us to sim ship easily.

"The coders use C#, which is many times more productive than C++ and with experience can be equally as efficient. We can prototype new features quickly and, once we're happy, convert them into production features with minimum hassle. The renderer also has a powerful set of features that means our artists can create the unique look we wanted."

## THE NEXT CHAPTER

With its Gamescom triumph under its belt, Guy says PaperSeven has been reinvigorated as it pushes towards *Blackwood Crossing*'s release.

"We were thrilled to win," she enthuses. "It's such a great feeling, and a glimpse of what we might be able to achieve next year if we continue to push ourselves.

"I think – and hope – we won because we're a small team pushing for a big goal: providing strong and stylish visuals and an emotionally-engaging story, alongside fun and contextual gameplay. It's a game that makes you think and feel." ■




CRYENGINE®
NO ROYALTIES.
NO OBLIGATIONS.
NO LICENSING FEES.
OUR GROUNDBREAKING TECHNOLOGY. YOUR PRICE.
WWW.CRYENGINE.COM

# jobs

YOUR MONTHLY GUIDE TO THE BEST CAREER OPPORTUNITIES

**MOVERS & SHAKERS**
Hires at Fishlabs, Lucid, Castar and Remedy
**P28**

**A PIRATE'S LIFE FOR YOU?**
HR manager Susan Russell on seeking out devs' Rare talents
**P29**

**GET THAT JOB**
Studio Gobo's Tom Geddes reveals how to land a role working as a game director
**P30**




# HOW FXP FESTIVAL IS ENCOURAGING YOUNG PEOPLE TO BECOME DEVS

Inaugural event aimed at teen coders hailed as a 'huge success' as it triples turnout expectations

The first Future Experience Points (FXP) festival took place at the end of June, with one aim in mind: giving young people a development experience in the hopes of inspiring a desire to pursue a career in game development.

Two games jams were organised for children aged 14 to 19 from Cambridge and West Suffolk schools, with support from major players in the industry, such as Jagex.

"This first FXP festival was a huge success," enthuses Alison Taylor, managing director at Conscious Communications, one of the partner organisations responsible for planning and staging the festival. "When we first set about organising a school and college coding competition we expected around eight teams would take part. However, we ended up with 24 teams, and that's without doing any marketing or promotion.

> **Teachers and students can't learn what they need from textbooks.**
> *Alison Taylor, Conscious Comms*

"This highlights the appetite among schools and students for these types of games jams and for learning about game development."

Taylor adds that this regional 'pilot' will allow them to improve and work on a national edition for June 2017.

She continues: "FXP allows students to learn directly from industry experts and provides an opportunity for them to gain an understanding of the range of careers available and what they will need to achieve in order to get there."

Time-management, communication and collaboration are amongst the skills FXP has taught the young artists – all invaluable abilities in order to become a good dev.

"This type of event helps to grow the pipeline for future talented young recruits into the industry," Taylor enthuses. "It also enables individuals already experienced and working in the industry to work alongside teachers and students to share their knowledge and skills, which is really important in an industry that is changing and innovating at such speed. Teachers and students can't learn what they need from textbooks; they're out of date before they're published."

As the majority of students involved with FXP are still in education, no jobs or internships were secured during the event, but Taylor has high hopes for the years to come.

"We have no doubt that many of them will be back to compete in FXP in future years and that their involvement will inspire them to consider careers in the industry when the time is right," she concludes. "We know the major games development companies will continue to be involved with the festival and follow these students' progress with interest." ■

# MOVERS AND SHAKERS

The latest high-profile hires and promotions



## DEEP SILVER FISHLABS

The mobile studio has made a number of senior appointments.

**HENNING WEISS** has joined as a senior VFX artist, having previously worked for the likes of 49Games and Bigpoint.

**PHILLIP CHAN** has been hired as senior game systems designer, joining from Goodgame Studios after positions at EA Mythic and NCSoft.

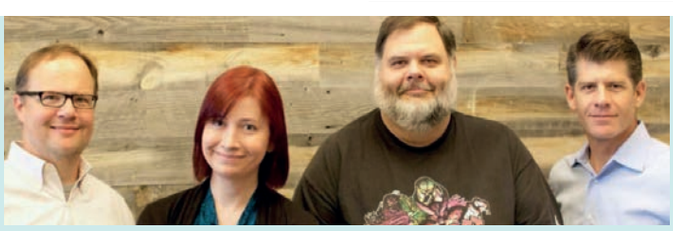
Lastly, **ANKUR SURI** is the firm's new senior marketing manager. He used to work for Gameloft as digital marketing and PR manager.

## LUCID GAMES



Games industry veteran **BRIAN WOODHOUSE** is Lucid Games' new head of business development.

He has over 20 years of experience in the industry and spent 12 years as the studio head of Bizarre Creations, helping its team to grow from 40 in 2001 to 200 in 2007, when Activision acquired it.



## CASTAR

The augmented reality studio has hired former Lucas Arts exec **DARRELL RODRIGUEZ** as CEO. The industry vet also previously served as COO of EA.

Meanwhile, **STEVE PARKIS** has been appointed as COO. He used to be Storm8's president of games and network and Zynga's SVP of games.

Both new hires worked at Disney for over seven years.

## REMEDY



*Quantum Break* creator Remedy has named **TERO VIRTALA** as CEO. He was previously CEO at Finnish developer and publisher RedLynx, which created the *Trials* franchise.

Virtala replaces **MARKUS MÄKI**, who is co-founder, chairman and interim CEO. He will return to his role leading studio productions.

# PRODUCER OF THE MONTH

This month, **Develop** speaks to Peter Willington, producer at Auroch Digital



**Describe your typical day.**

I tend to get into the studio early, check the upcoming schedule of work for everyone, and prepare notes for the morning stand up.

Once the day officially begins, I skim through my email inbox to ensure there's nothing I need to respond to immediately, then prioritise my tasks for the day.

These tasks are extremely varied. I might be planning out the schedule of a project, working with a team to detail sprints, researching specific data for a pitch, putting together a presentation, guiding the direction for marketing, attending meetings, playing a build, liaising with stakeholders, answering interview questions for a piece in *Develop*... the list goes on.

Honestly, that's what I really enjoy about being a producer at an indie studio: you're in every area, at all sorts of levels, and you truly see the full scope of the project.

**What has been your biggest achievement do date?**

Launching *Last Days of Old Earth* into Early Access, then full release, was amazing.

It's a big game with a lot of complex systems and it really pushed our team. But we seized the opportunities to learn everything we could and delivered a strong strategy game. I'm incredibly proud of what we achieved and thankful for everything we learned during the production of that game.

**What's the best advice you've ever been given?**

Before I started as a producer, my friend Will Luton gave me the best advice: "Leave your ego at the door."

**What advice would you give to someone looking to forge a career as a producer?**

Put something together with Quest, Adventure Game Studio, GameMaker or what-have-you and actually get to grips with what it takes to make a video game. It gives you such incredible insight into the creative process and respect for the multitude of skills that are required across disciplines.

I'd also ensure you're familiar with spreadsheets, can write clearly, know how to do basic image editing, and have a top-level understanding of production terms and methodology. ■

In association with

Testronic
Our assurance is your guarantee

# RECRUITER **HOT** SEAT

HR manager Susan Russell talks about what it takes to become a part of Rare, which is currently looking to hire talented devs to work on its highly anticipated multiplayer title Sea of Thieves

**How have the recruitment needs changed at Rare lately?**

Our recruitment responds to the needs of the business, and the type of people we hire is driven by our overall studio strategy.

We are now working hard on our latest game, *Sea of Thieves*, which is a shared-world adventure game, so we have recently been focusing our hiring on people who can help support an ongoing, evolving live service.

We've recently built out our capability across engineering, community management, BI and analytics and product management to make sure we deliver the right experience to a new generation of Rare fans.

**What differentiates your studio from other developers?**

Heritage is one differentiating factor. There aren't many studios with as much history – and such a diverse and popular back catalogue – as Rare.

On top of that, we're in a privileged position to be a part of Microsoft Studios. We get the backing of a hugely successful organisation that can help us achieve success at scale, while still giving us our own creative freedom. People often say that we have the feeling of being a well-funded indie.

**Are there any job roles or skills that you are particularly looking for?**

Although we've recently grown our engineering team, we're still looking for a couple more critical hires in this area. We've also got a number of open hires in our art team, including an art director role.

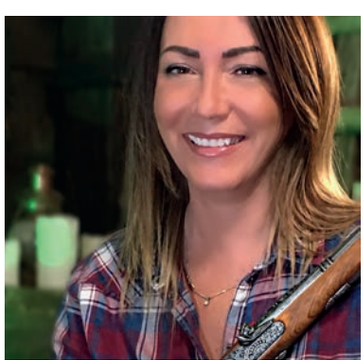
We currently have ten open roles across the studio. We're also open to finding talented people at any time, so actively encourage people to send in speculative applications for all types of roles.

**What should aspiring devs do with their CV to get an interview at Rare, and what advice would you give for a successful interview?**

Our hiring managers love to see people showcase their work, so don't just rely on a CV to get you noticed. Send examples of your work to really stand out, and show us that you have a real love of what you do as well as a real passion to learn and grow – at Rare we do things that are new and different all the time.



The perks of working at Rare include access to a football pitch and golf course, plus educational events for kids



> **There aren't many studios with as much history as Rare.**
> *Susan Russell, Rare*

Once at interview, just be yourself. Be open and honest, and don't just try to tell us what you think we want to hear.

**What perks are available to those working at Rare?**

Lots, including the usual ones like life insurance and private healthcare. We also have amazing grounds, personal trainers, a football pitch, a golf course, free soft drinks and fruit, and a rather good chef-led restaurant which is subsidised, too.

We also have a state-of-the-art studio in leafy Leicestershire that is one of the most amazing facilities of any games studio in the world. It's hard not to be inspired just by coming to work.

We are very deliberate about ensuring staff maintain a good work-life balance and regularly run family events. In addition, we hold educational events for our children such as Hour of Code, and we will soon be running a one-week Rare Kids Camp where our own children will concentrate on STEM subjects in a fun and creative environment. We run these initiatives not only to support working parents, but also because we are all super passionate about inspiring the next generation.

Perhaps the ultimate perk is to get to be a part of something special, with a very special team. It's a genuine privilege to come to work every day and be surrounded by talented, passionate and inspiring people. The team feels like an extended family, with everyone pulling together and supporting each other to get the job done.

**What are you looking forward to in games over the next 12 months?**

First and foremost, I'm really excited that Rare will be growing *Sea of Thieves* and getting more people playing as we launch our beta. We're so excited for this game, and we can't wait to get people playing.

From an Xbox perspective, it's awe inspiring to be part of a first-party games line-up that's so strong. With *Gears of War 4*, *Halo Wars 2*, *ReCore*, *Forza Horizon 3* and *Scalebound* to come, as well as *Sea of Thieves*, there's plenty to be excited about. It should be a pretty amazing 12 months. ■

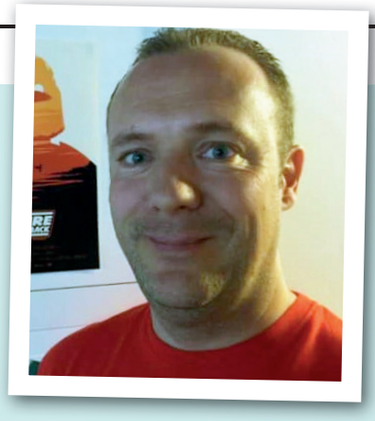
## CURRENTLY HIRING

**Company:** Rare
**Location:** Twycross, UK
**Hiring:** About ten open roles across the studio, including programmers, engineers, artists and designers
**Where to apply:** www.rare.co.uk/careers

Follow us at: **@develop_jobs** **#DevelopJobs**
To see our full jobs board, sign up for our jobs newsletter or to post your own job ads, visit: **www.develop-online.net/jobs**

# GET THAT JOB

**This month: Game Director** with Studio Gobo's Tom Geddes



**What is your job role?**
As game director, my role is similar to that of a lead designer, who leads the product's creative direction, and project manager, who facilitates and tracks the progress of the product.

I like to perform the role from more of a creative director's perspective, but ultimately the position is really about making sure that all aspects of the development fit the vision of the end product.

Daily duties include managing feature teams, acting as the creative authority, creating design goals, communicating with clients, reviewing work and generally paying close attention to all the little details.

**What qualifications and/or experience do you need?**
Education is important, as a good degree course often demonstrates a person's motivation, communication and technical skills. However, game directors tend to be hired based on their previous experience; it's not a graduate position, or a position that is obtained without a lot of prior development knowledge.

> **Seeing a project through to launch and then reaping the rewards would be hard to match in most other industries.**
> *Tom Geddes, Studio Gobo*

**How would someone come to be in your position?**
Game directors form a vital part of a project's management team, and gaining employment in such a role requires the necessary experience and skill.

Most game directors I know have come from a varied design background, with numerous design achievements and experiences under their belts. Their past experience means that that have a good understanding of the many areas of development and how projects and studios are run. They may have a background in programming, production or design.

**If you were interviewing someone, what do you look for?**
I look for positive, confident, knowledgeable and honest candidates, ones that open up and show a real interest when answering questions. I like people to dive deeper with their responses, and a knowledge and passion for our studio and games is a must.

**What opportunities are there for career progression?**
Different studios and even different industries all have similar roles to that of a game director – from creative directors and design managers that hold the vision of the product, through to project managers that are responsible for the day-to-day running of the team

There are always opportunities for people that proactively want to lead a team, give direction and own a project.

**Why choose to follow a career in your field?**
Working as part of a creative team, seeing a project through to launch and then reaping the rewards and critical acclaim would be hard to match in most other industries. It's a career that combines my hobbies with my talents and put simply – it's just great fun. ■

# SKILLS AND TRAINING

Bournemouth University's principal academic in creative technology **Dr Christos Gatzidis** talks about the courses' emphasis on professional practice

Bournemouth University has two undergraduate courses in games development – BSc Games Programming and BSc Games Technology – both delivered in the Faculty of Science and Technology and the Creative Technology Department. The uni also offers a postgraduate course, MSc in Computer Games Technology.

"The games courses, and Bournemouth University in general, focus on the fusion of education with professional practice and research," says principal academic in creative technology Dr Christos Gatzidis, who is also programme leader for the games technology and games programming degrees. "This means that students on the course work on research projects with us on occasion but benefit from regular industry engagement as well, with many different devs visiting us every academic year."

Among the studios visiting the students, which come from all across the country, Gatzidis highlights local outlets, such as Amuzo: "They have hired graduate students from the Games Technology course, delivered guest talks and game jam briefs for us and even housed a team of students at their premises and mentored them for a number of weeks."

In addition to insight from devs, Bournemouth also puts an emphasis on giving students key skills they will be able to use throughout their career.



"We focus on core skills more than tools, as we feel these equip students better in the long run," Gatzidis explains. "But we do also try to use industry standard software as much as possible. In terms of game engines we use Unity 5 and Unreal 4, plus Maya and Zbrush for the modelling/animation units. For programming, we predominantly use C++ and the OpenGL graphics API."

Bournemouth's degrees focus on actually creating games, with game jams during the year and many of the units asking for a game as the eventual output of the coursework.

"We encourage students to independently start their own companies during the third year, which is their placement year," Gatzidis concludes. ■

**Overview:** The Faculty of Science and Technology and the Creative Technology Department offer a BSc in Games Programming and a BSc in Games Technology. Bournemouth University also offers a MSc in Computer Games Technology
**Address:** Bournemouth University
Faculty of Science and Technology
Poole House
Talbot Campus, Poole,
BH12 5BB, Dorset
**T:** 01202 965135
**E:** enquiries@bournemouth.ac.uk
**W:** www1.bournemouth.ac.uk

# Legends of football

supported by hmv

(Formerly the Football Extravaganza)













## WEDNESDAY 5TH OCTOBER 2016
## GROSVENOR HOUSE HOTEL

*"The greatest night of football and fundraising in the calendar."*

Celebrate 25 Seasons of The Premier League, and relive the most memorable moments and goals with some of the games' greatest legends and goal scorers. Be part of this amazing event where we will present the **Legend of Football Award** to one of the elite group of players to have scored over 100 Premier League goals.

Players joining us on the night from the '100 Club' include **Alan Shearer**, **Michael Owen**, **Andrew Cole**, **Jermaine Defoe** and **Matt Le Tissier**, as well as many more players and managers from the beautiful game.

**For further details and to book your table:**
**enquiries@legendsoffootball.org.uk**

## LOFOOTBALL.CO.UK

LEGENDS OF FOOTBALL  LOFOOTBALL

NORDOFF ROBBINS
Life-changing music

# KEYWORDS STUDIOS

## ART PRODUCTION

## AUDIO PRODUCTION

## LOCALIZATION

## LOCALIZATION QA

## FUNCTIONAL QA

## CUSTOMER EXPERIENCE



## GLOBAL GAMES SERVICES

**Keywords Studios** is an international technical services provider to the global video games industry. Established in 1998, with 23 offices worldwide, it provides integrated localization, QA, art, audio and customer experience services across 40 languages and 12 games platforms.

Montréal • Seattle • Portland • Los Angeles • Mexico City • Rio de Janeiro
Dublin • Paris • London • Hamburg • Barcelona • Madrid • Milan • Rome
New Delhi • Pune • Taipei • Manila • Singapore • Shanghai • Beijing • Tokyo

WWW.KEYWORDSSTUDIOS.COM SALES@KEYWORDSSTUDIOS.COM / KEYWORDSSTUDIOS / KEYWORDSSTUDIOS / KEYWORDSSTUDIOS

KEYWORDS | BABEL A KEYWORDS STUDIO | liquid violet A KEYWORDS STUDIO | binarisonori A KEYWORDS STUDIO | ALCHEMIC DREAM A KEYWORDS STUDIO | A KEYWORDS STUDIO | mindwalk STUDIOS A KEYWORDS STUDIO | LAKSHYA A KEYWORDS STUDIO | KITETEAM A KEYWORDS STUDIO | REVERB A KEYWORDS STUDIO | SYNTHESIS A KEYWORDS STUDIO

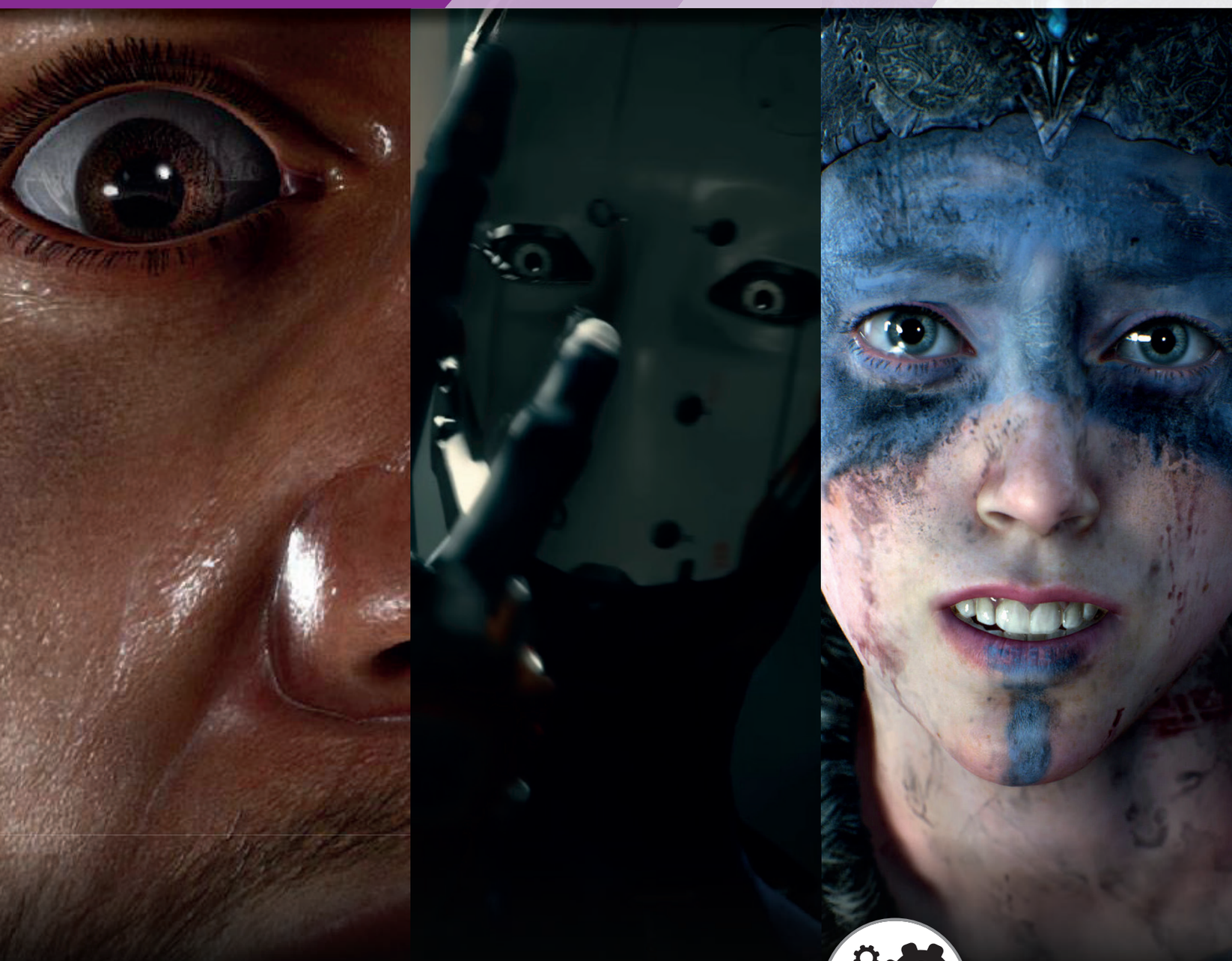
# build

THE LATEST TOOLS NEWS, TECH UPDATES & TUTORIALS


**TRIO OF TITANS**
Interviews with leading engine firms on their future
**P34-39**

**ENTER THE CONTENDERS**
Why there is still plenty of room for innovation in the engine space
**P40**

**WHAT DO DEVS WANT?**
We ask studios what helps them choose the tech for their games
**P42**

ENGINES SPECIAL

# THE FACES OF **CHANGE**

In our 11-page Engines Special, we find out how the likes of Unity, Epic, Crytek and more are changing the way games are made and making development more accessible than ever

# 'THERE'S NO FOOD INDIE DEVELOPER

Following the platform's switch to a subscription model, **Matthew Jarvis** speaks to Unity ambitions with accessibility, convincing smaller studios to take on the mobile giants and

**At this year's Unite Europe you described Unity as 'evolving'. How and why do you feel that the engine is changing?**

What's not evolving is our principles. We really believe we're here to serve our developers. That's the most important thing: build something that helps our developers solve their problems.

We do that in many ways; we do that by helping them be more productive when creating their games. We build an engine for that that covers multiple platforms. We help them by giving them tools to create better-looking things because there's a more competitive market out there. We do it by helping them understand their business: in-app purchases through analytics or advertising. And in helping them generate revenue so they can stay alive.

I think we're partly evolving because the world's evolving. If you go back before the iPhone or smartphone, it was maybe 300 million people on the planet that had ever played a game. Now it's 2.5 billion that play a game every month. In that mass, people have high expectations and we want to make our product, and the products that are created by our developers, live up to those high expectations.

We also change because CPUs and GPUs are getting more powerful, and that means there's an increasing expectation for higher resolution, multiplayer and social capabilities, and a level of graphic performance that people haven't really been used to.

You can't say there's one answer for this market, but we have to provide technology that supports both types of products, whether people are seeking to make something beautiful or something incredibly simple and easy.

**Unity started with a very indie-friendly persona and has subsequently scaled up towards offering a triple-A level of quality and features. Has that caused a perception problem for the engine?**

It's a complicated answer. I have never met a developer who doesn't aspire to make something beautiful. They may not be making that beautiful thing now, but they're going to invest years of their lives perfecting their skillset within a technology base. Whether that is Unity or not, that's up to them, but many of them, five million of them, have perfected their technology skills in and around Unity.

To say we're getting more triple-A, we are, but with Unity 5 we said the Personal edition is free and has all the power of Unity – we had never done that before. That was designed exclusively for the indie: people with less than $100,000 in revenue. Our userbase exploded.

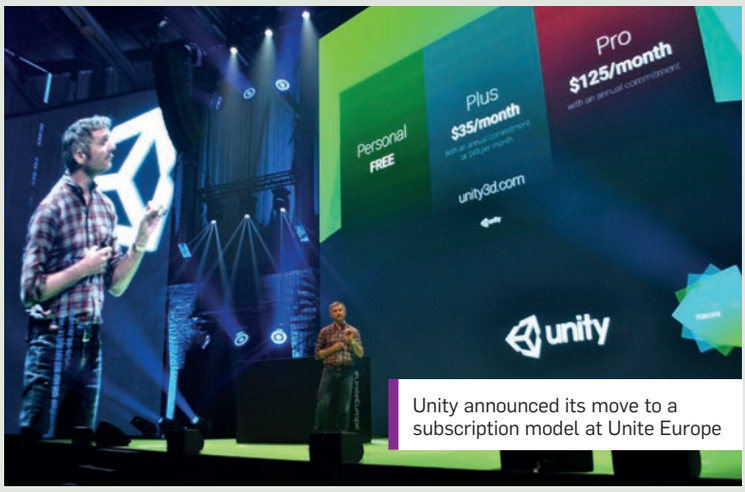
I don't think that there's a food too good for the indie developer to eat – the question is whether we prepare it right.

As we always have, we occasionally slip up: we do something that causes less stability, we put a feature in that causes something to crash, we'll do something that doesn't work as well as



# TOO GOOD FOR THE TO EAT'

## CEO John Riccitiello about balancing triple-A going beyond its origins as the 'indie engine'




Unity announced its move to a subscription model at Unite Europe

we would like. That's actually where the rub happens. There can be a perception: 'Hey, you put this beautiful thing in here, but you got less stability.' That's happened many times in the last ten years, and it will happen again. We are currently, and always will be, focused enormously on stability.

**Do you feel that Unity's technical ambitions are limited by its dedication to remaining an accessible engine?**

If all we did was have a super approachable product that wouldn't allow you to make a commercial product, we would be a company with 50 people and 200 customers and they would all be very happy with the narrow product we produce. But our customers want VR and AR, they want mobile, they want PC, they want console. There's tens of thousands of companies that focus exclusively on AR and VR. So no, I don't think that's a conflict or that it holds us back – it just challenges us to do more. I don't believe Unity has got more difficult to use, but some systems that you don't have to use, like global illumination or PBR, are harder to use than systems that they replace. But our customers really want them.



We're always looking at ways to make those things simpler, more stable and more effective, but I don't think we've got more complex in general. What does happen is you get more complex to do more complex things, and we try to simplify those more complex things.

**You said at Unite that smaller mobile developers should invest in advertising rather than analytics and user acquisition as their larger competitors do.**

The people at the top of the charts are playing a very sophisticated game. Table stakes is making a great game that appeals to a lot of people, but the reason they're at the top of the charts is they're also playing a second game very effectively; they're arbitrating the delta between lifetime value and user acquisition spend.

> **You get more complex to do more complex things, and we try to simplify those more complex things.**
> *John Riccitiello, Unity*



The first thing they do is tune their products to optimise revenue – that's a combination of advertising and usually in-app purchases. They're doing that really well, tweaking their day-to-day, month-to-month engagement levels and minute-to-minute monetisation numbers up, so they have more money to work with.

Then they're doing some very tuned communication where they're spending money to acquire users. If for a similar product they can generate $2 more lifetime value, then they can spend $2 more on user acquisition than anyone else in a world where acquisition of users is somewhat limited. The guys at the top of the charts are there because they have that formula down to perfection.

In games, a lot of the old-timers that have been at this for 10 or 15 years who cut their teeth on premium games think advertising cheapens the experience. The data shows the consumer doesn't think that. The data is clear, but there are developers who don't believe it. If they don't think that, and they don't try advertising, they're turning away an important revenue stream.

If these same developers that are so good at optimising revenue per user and lifetime value choose not to invest in bringing that revenue in on the ad side, they're going to have less revenue than someone that makes a product just as good as them. Ultimately that will cause them to lose their position at the top of the charts.

**We're seen Unreal and CryEngine move their business models closer to that of Unity, introducing payment models suited to smaller budgets. Unity, meanwhile, has brought in new subscription tiers. Is there a danger of the engines converging?**

I don't know. If you add up CryEngine and Unreal, we probably have ten times more customers. I don't know if we're converging. We do a lot of things well and they do certain things well and we don't wish them ill.

Unity led the way with a free-to-play model in Personal edition. A lot of people are copying that. That's flattering; we're doing the right thing.

**When you announced the Unity certification programme at GDC, we heard from a number of creators who perceived it as a form of tax on Unity developers. How would you respond to this criticism?**

The vast majority of developers are independent developers. What increasingly happens is that there's no standard out there for figuring out if you're good or bad.

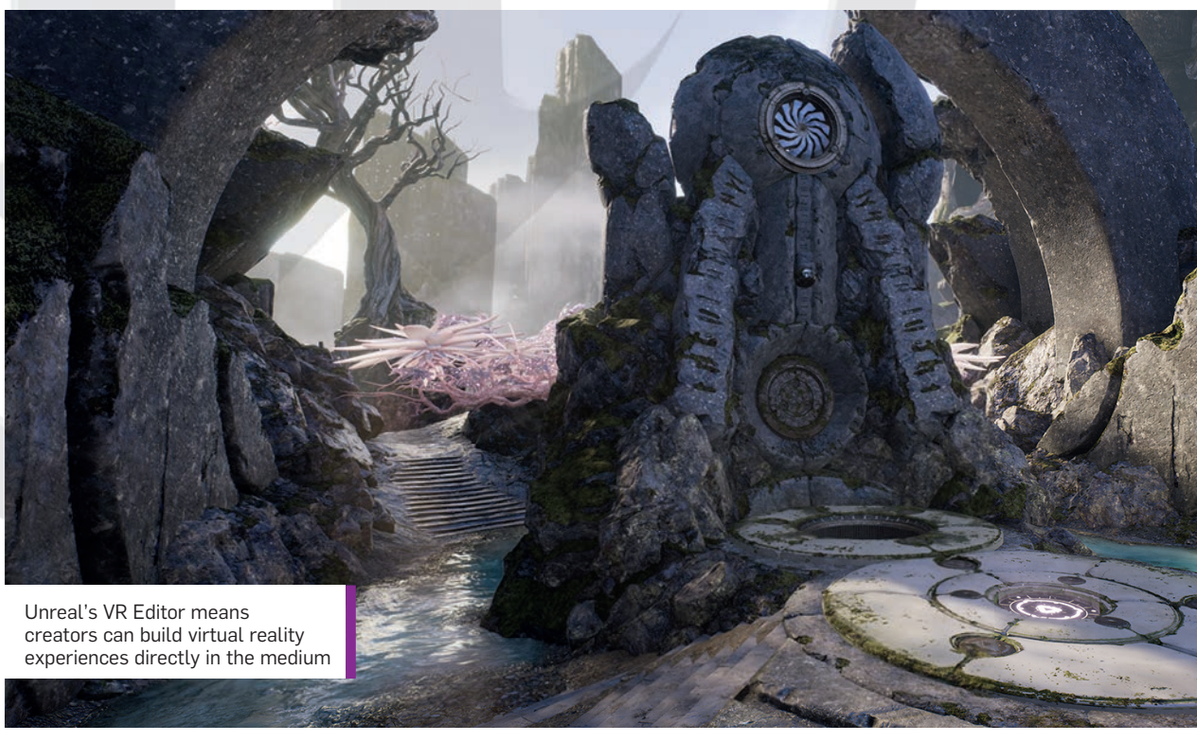
This is a simple certification programme; it's designed to help people have a credential that says they're capable and they've been tested.

If you don't want to do it, we're not forcing anybody to do that. In fact, we give away our technology inside of universities and high schools to give more people the opportunity to create.

I hear most complaints, I haven't heard anything on this one. I guess it's a unique point of view, if it was a big issue I would've heard more about it. ■

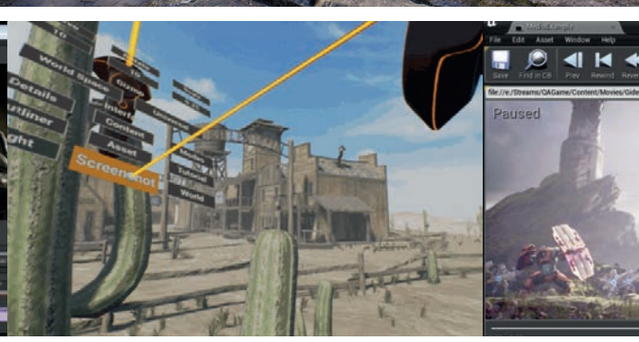
# UNREAL EXPECTATIONS

**Matthew Jarvis** speaks with Epic Games founder and CEO Tim Sweeney about the Unreal Engine firm's efforts to blend the virtual world and reality, how indies can be built into businesses, and why engines are facing a greater technical challenge than ever before



Unreal's VR Editor means creators can build virtual reality experiences directly in the medium






Eighteen months ago, one of the biggest games engines in the world made an industry-changing move: Unreal Engine went free.

It was a sign of the times both for Epic Games' iconic tool and the developers using it, as the previous $19-a-month subscription model was ditched partially in order to keep pace with relative whippersnapper Unity, which had surfed to success on a tidal wave of indie support.

"The biggest surprise has been the huge influx of new customers – over two million developers have chosen Unreal Engine 4 over the past 18 months," reveals Epic Games founder and CEO Tim Sweeney. "We've never experienced anything like this in our earlier, triple-A-focused engine generations.

"Most interestingly, these new users are incredibly diverse: indie developers, artists, filmmakers, architects, industrial designers and, of course, veteran game developers. This new trend is heavily influencing our engine direction."

Among the additions made to Unreal to satiate its burgeoning userbase are technologies that aim to take the engine beyond the games industry into completely new territories.

"We've been pushing the boundaries of what's possible with digital humans, with realistic facial animation, skin shading, hair technology, eyes rendering and body animation tools," Sweeney says. "We've advanced the state of the art in immersion and photorealistic 90fps rendering for VR, including releasing the Unreal Editor with full support for VR editing.

"UE4's Sequencer cinematic tool has come online and is powering a wide range of in-game and film-class storytelling efforts."

With the tool now catering for a far wider breadth of creators, should devs be concerned that their requirements may now become an afterthought? Sweeney insists that isn't the case.

"The most interesting fact about these new categories of users is that their needs are 90 per cent the same as those of game developers," he retorts. "They need the same physically-based rendering, editing tools, simulation features, and so on. 10 per cent of their requirements appear to be custom: CAD file format importing, specialised material rendering for car components, workflow automation.

"Every day, we're discovering new synergies with these industries. There is much we can learn from them."

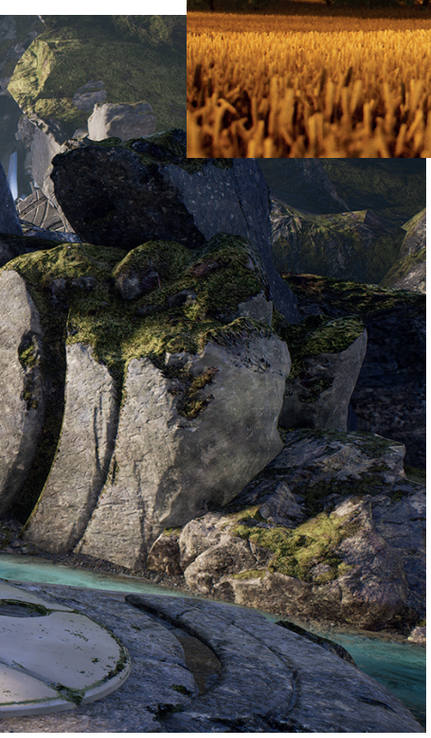
## THE INDIE QUESTION

Despite its growing efforts to attract smaller studios to the platform, Unreal continues to be regarded by many indie developers as an engine out of their reach. Sweeney presses Epic's achievements in improving its standing among smaller studios, but admits that work remains to be done.

"In this generation we've scaled our engine from supporting 10,000 veteran game developers to over two million indies, but I feel that's just the beginning," he explains. "Look at *Minecraft*, for example; it's partly a game and partly a 3D world creation tool, and



Unreal Engine 4's Sequencer tool allows devs to create their own in-game cinematics







has introduced 50 million new users into the field of digital content creation.

"Many of those users started as kids, and are now moving up to higher-end tools. There's a huge opportunity for engines like Unreal and Unity to serve their needs. Efforts with our VR Editor are inspired by this; CAD software is complicated, but building worlds in VR by reaching out and grabbing objects with your hands is vastly more approachable."

One controversial factor is Unreal's business model, which asks devs for a five per cent royalty once a game's revenue passes the $3,000 mark.

"I believe it's a fair deal," Sweeney responds when asked about criticism of the deal. "You can download the world's most powerful engine for free and build any project for any supported platform.

"It's also possible to negotiate a custom licence with Epic, paying upfront in exchange for a lower royalty or no royalty. But most triple-A teams choose the royalty option, recognising that it's fundamentally a sound business decision."

Sweeney's confidence in Unreal's business model comes as the engine's closest competitors revise their own approach to developer reimbursement. In March, Crytek released CryEngine V with a 'pay what you want' model. Meanwhile, Unity has headed in the opposite direction, introducing subscription tiers alongside its free Personal edition. There's also newcomer Amazon Lumberyard, which offers a free engine backed up by paid Amazon Web Services.

"We strongly believe in our business model and will stay with it," Sweeney reiterates. "It perfectly aligns Epic's interests with those of Unreal Engine developers, in that we succeed when they succeed. It's a solid, independent business foundation that has existed since 1996, and doesn't depend on the fortunes of an ancillary service, advertising business or exit strategy."

Sweeney's expression that Epic sees its own success in that of its users continues in the firm's initiatives, including the $5 million Unreal Dev Grants fund to support innovative projects built with the engine. He adds his belief that such programmes serve to close the gap between Unreal's emerging users and prominent flagbearers.

> **We've scaled our engine from supporting 10,000 veteran game devs to over two million indies, but that's just the beginning.**
> *Tim Sweeney, Epic Games*

"Our goal is to help developers grow from the hobby-scale development of the early days to the business-scale development that's required to compete today," Sweeney outlines.

"It's still possible to power game development on Mountain Dew and ramen, but some things require money: hardware, marketing, contracting, events. Unreal Dev Grants are designed to help with this.

"We'll continue to seek new ways to help developers build their businesses."

## PERPETUAL MOTION ENGINE

Unreal Engine made its debut in a time before high definition resolutions and virtual reality. Despite being fewer than five years old, its fourth iteration is already having to embrace major technical advancements.

"We're on a great track with performance optimisation and features for 4K," Sweeney says. "The bigger mid-term tasks are in digital humans, world-building and content pipeline improvements. With high-end facial motion capture technology on its way to consumer hardware, engines will need to replicate realistic humans in far greater detail than ever before.

"VR will open up entirely new possibilities for world building, and we'll need tools for that. We need to deliver higher productivity than ever before, not only for games, but also for film and other industries. The scale of new technology required is unprecedented in the history of engines."

Sweeney remains optimistic that once extreme visual fidelity and the immersive technology unite, Unreal will lead the way in creating experiences that are indistinguishable from real life.

"I feel we're five years away from attaining the level of engine features and hardware quality to build something like the Metaverse, which transcends today's game experiences to create a simulated reality where people can interact as in the real world," he predicts. "There is no question that is the ultimate goal." ■

# BATTLE CRY

Crytek has renewed its efforts in the engines race this year with a complete overhaul of its technology and a fresh focus on community. **James Batchelor** finds out why the creator of CryEngine is running a marathon, not a sprint

CryEngine has changed.

The fifth iteration of the high-end games engine, launched at GDC earlier this year, introduced DirectX 12 support and a new low-overhead renderer, and improved on its particle and advance cloud systems – but it's not just functionality that has undergone the biggest transformation.

CryEngine V marks a new beginning for Crytek as it attempts to make its technology more accessible than ever – a move that business development director George Scotto tells us is an ongoing effort.

"We're still making changes to the editor, improving the UI to make it more intuitive," he says. "We have a pretty sizeable team that's dedicated to improving the workflows, the look and feel, just to make it easier for any developer that's used to using any tool able to get in and actually start developing right away."

This isn't just for the benefit of established users. Crytek is keen to attract new studios from around the world, and it's targeting studios with a lower profile than those best known for building games with its engine.

"We're not focused on growing the high-end business right now," says Scotto. "We're focused on growing the grassroots effort. We've been tailoring our conferences and meetings with indie developers to provide them with workshops, assistance to get going.

"The key is showing them ours is not just a powerful, high-performance engine – it's also accessible to the masses, and not just in terms of the pricing and business model. We're still developing this engine to be a high-performance, great-looking engine but we're also showing that any developer can use our tools to make amazing games."

## JUMPING SHIP

After implementing a new C# interface, Crytek found itself working with a number of devs that previously used engines based on the programming language, such as Unity. As a result, several of these studios have ported their game from Unity to CryEngine – and, Scotto points out, with minimal support needed.

Simply opening up the engine isn't enough to instantly have indies flocking to your business. Crytek has also had to improve on the way it reaches out to and interacts with these studios.

"A lot of feedback we received was based on us perhaps not doing a good job explaining what our tools do, or that certain features exist," Scotto explains. "There's been a communications gap.

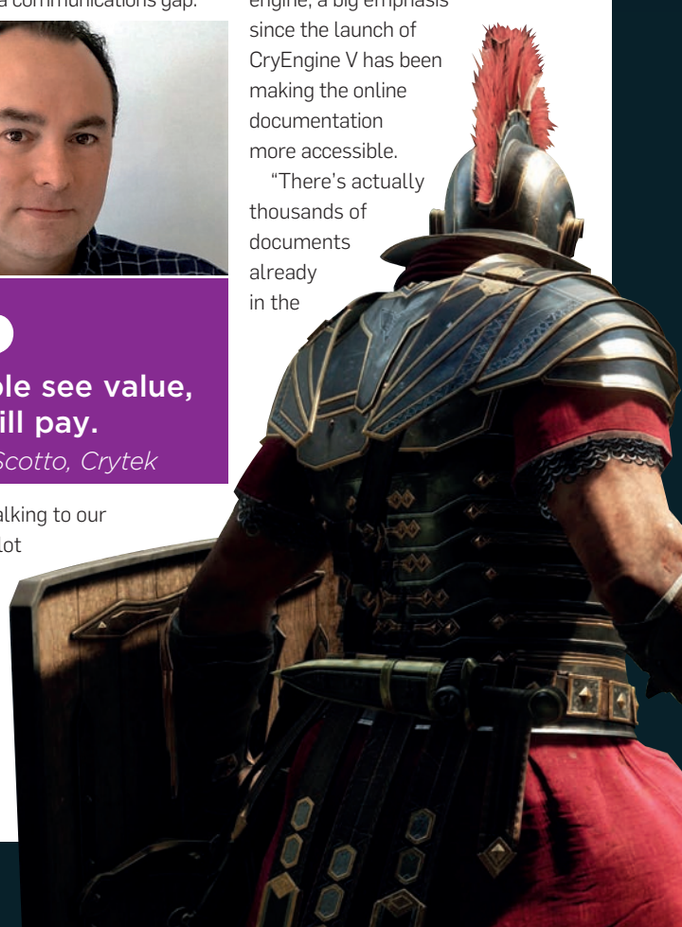


> **If people see value, they will pay.**
> *George Scotto, Crytek*

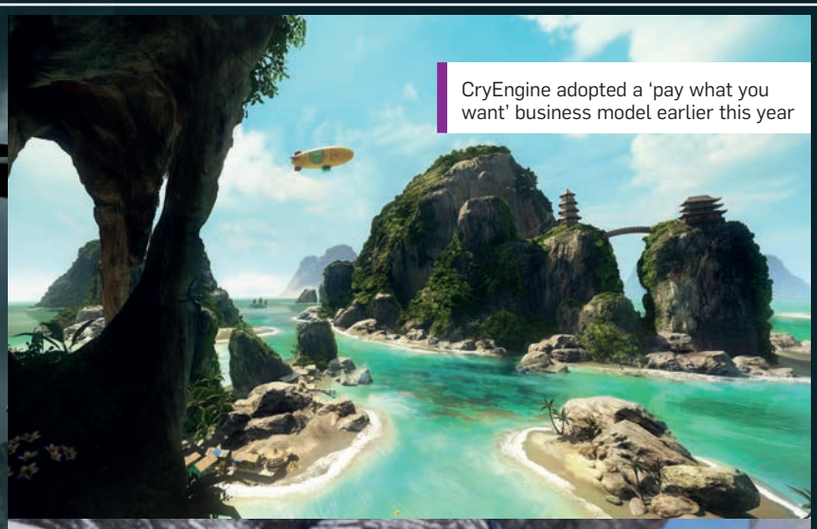
"So we're talking to our community a lot more and, for the first time in our history, openly sharing the roadmap, which is a big thing for us."

As well as this direct communication, Crytek is improving how studios can reach out and solve their own issues with the engine; a big emphasis since the launch of CryEngine V has been making the online documentation more accessible.

"There's actually thousands of documents already in the







CryEngine adopted a 'pay what you want' business model earlier this year



system but it was never presented well," Scotto admits. "That's been a big focus for us. We have a growing documentation team that is working very closely with the development team to ensure that not only is the documentation easy to read, but it's updated properly."

Video tutorials are a priority, to the point where Crytek hired someone from the community for the job; Colin Bishop was brought into the fold after creating video lessons of his own thanks to his knowledge of the engine.

"We want to empower the community to create documentation and tutorials on their own, so we've done a lot of work with them," Scotto continues. "If they create a feature, or they're an expert in a certain area, we've reached out to them and had them provide us with documentation or even videos."

## MODEL MAKER

The final major change this year has been the business model. With the arrival of CryEngine V, Crytek dropped the $10 subscription it introduced in 2014 and adopted a 'pay what you want' approach.

"People think it's a bold move," Scotto says of the response so far. "We don't believe in taking people's revenue. We didn't think people would like us taking five per cent of their revenue. I know that's a strong point for Unreal, but if a game is very successful that's a revenue stream you don't want to lose.

> **Can we be the No.1 engine? I don't think so, but we can be a healthy competitor.**
> *George Scotto, Crytek*

"Committing people to subscriptions, which Unity always did, was also not something we wanted to do any more. We think this is a good model: the platform has to develop over time before we see a large revenue stream coming from it. As long as we continue to make the experience enjoyable and the engine powerful yet easy to use, eventually people will pay us more money."

Herein lies the central objective for all Crytek's changes this year: to establish CryEngine as more than a tool, as a development platform. The firm wants devs to join in with its evolution, communicate and share ideas with fellow games makers, and potentially hire and work with each other on projects.

"We're trying to show them the real value of the engine," Scotto says. "People are fair. If people respect the company, the brand, if they see value, they will pay."

There are some that will argue these are efforts to catch-up with leading rivals Unity and Unreal. However, Scotto insists that direct competition with these two is not Crytek's priority.

"We're not looking to win the sprint, we're looking to win the marathon," he explains. "Each engine has a strength. Competition is healthy, and there's plenty of room for companies to carve out a niche and become successful or own a particular vertical of the engine business.

"Our focus is to grow market share, and to that end we're making it easier for people to access and improve the experience. Can we be the No.1 engine? I don't think so, but we can be a healthy competitor. The market's big enough to accommodate that." ■

## VIRTUAL SUPERIORITY

Crytek prides itself on having the most powerful engine when it comes to VR. In fact, most of the enhancements made for CryEngine V were geared specifically towards virtual reality.

"That's obviously been our focus in 2016 – we've gone very big on VR performance," the firm's George Scotto confirms. "We've really pushed the envelope in VR. You can see that with our titles like *The Climb*, which is an Oculus exclusive, and *Robinson: The Journey*, which is a PlayStation VR launch title."

The firm is also keen to establish CryEngine as the benchmark for virtual reality. Crytek is helping a firm called Basemark with its new VR Score programme to create a tool that will help end users quickly identify whether their PC is ready to run virtual reality titles.

For Scotto, it harks back to the engine's early successes when internal Crytek titles were used as a benchmark for high-end PC gaming.

"There was always the saying among PC gamers: 'Can it run *Crysis*?'"



A host of specialised engines exist for almost every purpose, from mobile development to triple-A-level graphical prowess




# ENGINEERS & ENABLERS

Competition is fierce in the engine space, but that hasn't deterred more companies from offering their own suite of development tools. **James Batchelor** speaks to the contenders

Given the domination of huge, high-end engines from Unity, Epic and Crytek, you could be forgiven for believing that it's foolhardy for any other company to release their own game-making toolset.

However, rival engine firms insist there are still plenty of opportunities for new products thanks to the sheer variety of studios and their projects. Offerings such as Lumberyard, Stingray, GameMaker: Studio, GameGuru, Stencyl, Phaser, Construct2, GameSalad – the list goes on – cater to developers with different needs and skill levels.

"The task of creating and maintaining a games engine might be seen as Herculean, but there is always room for a product that offers something that did not exist yesterday," says Lee Bamber, CEO of The Game Creators.

"Large engines need to satisfy millions of users, the tool-chain becomes more complex to accommodate their needs and it requires a lot of money from the user to keep going. A smaller engine has the benefit of being less complex and less costly, which means easier to use and cheaper to make your finished game."

JC Connors, senior leader on Amazon's Lumberyard, adds that the extent to which developers modify these engines for their individual project ensures titles built on the same tech stand out from each other.

"Most of our conversations are with developers who believe that the technology that they build is as important as the underlying framework," he says. "There's tons of room for innovation when it comes to engines, especially when you think about cloud and community features.

"We don't spend much time thinking about what other engines are doing. The canvas is so large, the most difficult part is prioritising what capabilities and features we should build next for our customers – thankfully, we have an open dialog with developers and we hear about emerging challenges all the time."



Amazon Lumberyard is free to use, with additional AWS services requiring payment

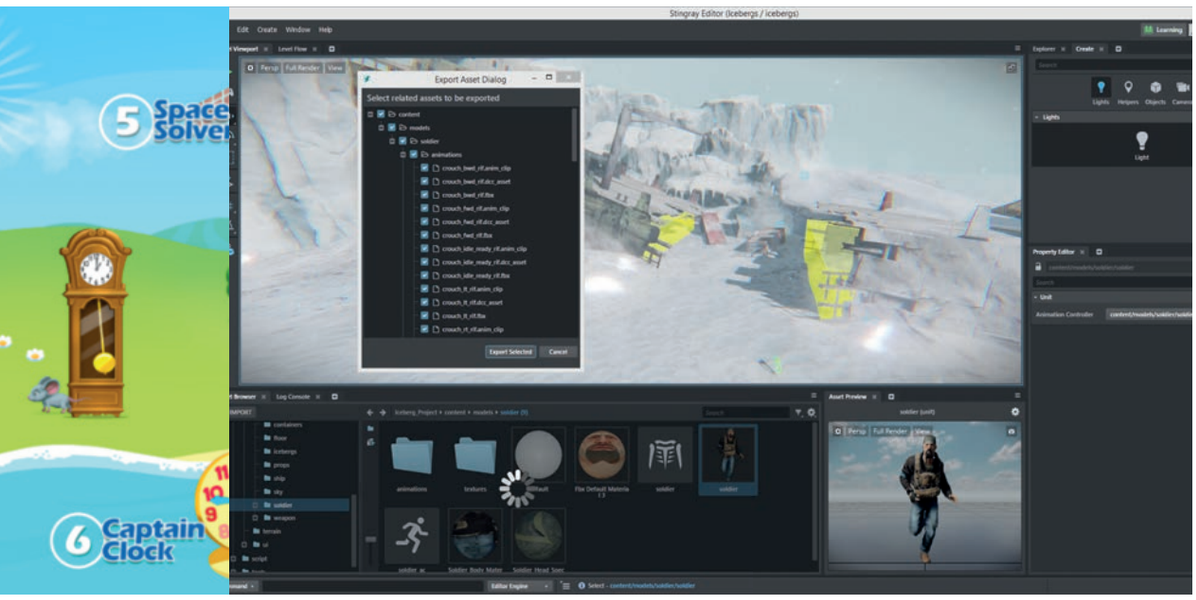
## FASHIONABLY LATE

Lumberyard is the newest contender in the engine space, having launched earlier this year. Yet Connors says being a late entry actually gives the Amazon team an advantage.

"We aren't bound by the same needs to maintain backwards compatibility to legacy partners," he explains. "As such, we can move fast and reinvent what it means to be a great game engine in a world where 85 per cent of top PC and console games feature multiplayer."

Catering to the modern market has enabled Amazon to not only improve on its core engine – derived from CryEngine – but also engineer services that help devs tailor their titles to changing player behavior.

"We've been working closely with our customers to improve Lumberyard, making the tech more modular so developers can better customise it with their own differentiating technology, and continuing to add new features in areas such as graphics, cloud integration, Twitch, VR, and more," he details.




Connors' claims that Amazon is not getting caught up in competition with the larger players echo those of other engine firms, who instead choose to focus on honing their own offerings.

"A product can pretty much market itself if the benefits are compelling enough, and our strategy for user acquisition is to add more features, game-making content and help and advice, either from community requests or changes in the technology landscape," says Bamber.

Autodesk industry strategist Maurice Patel adds: "Each company is following its own strategy and they are all different, but the focus of most companies is shifting away from the engines themselves to a much broader perspective on content creation."

Arguably the pressure is on for smaller engines to raise their profile, showcasing the games built with their tech. Yet Bamber stresses that this isn't a priority for The Game Creators, which lets users decide whether or not they want to promote GameGuru or AppGameKit as the foundation of their titles.

"Some engines automatically stamp their logo on the game with an option to pay and have it removed, but we feel our approach is better," he says. "Traditionally, gamers are much more interested in whether a game is good or not, rather than the technology it was created in.

"A better strategy is to offer a service allowing finished games to be listed on the engines own website, or in press releases and other social feeds that target the budding game developer, rather than the poor gamer who wants fewer loading screens and more game."

## A NEW WAVE

Much like the big three that dominate the space, other engine creators are keen to reach out to the rising wave of new and aspiring developers.

"We have also been focusing on usability, to make it easier for anyone to start creating interactive content," says Patel. "This includes improving the workflow between our 3D animation tools and Stingray to help indie developers who do not want to build custom pipelines.

"Ultimately, we believe interactive game engine technology has a much broader set of applications than just games; but it has to be much easier to use if it is to reach its full potential. The Stingray source code is available if you need to get deep into the guts of the tech, but the trick is to abstract that complexity from users who want to use engines to build interactive experiences rather than spend their time developing games."

Last year, The Game Creators took the bold step of launching a game engine that would be accessible to end users themselves. Players can download GameGuru from Steam and create a 3D title within minutes. They can even sell those creations on, with Bamber promising "no strings attached".

He says: "Thanks to Steam, we have been able to grow our userbase considerably, attracting users who do not necessarily want to spend months learning tools or a fortune on content, and instead want a fast track into the world of game creation, as much for the fun of creating as opposed to the serious business of games production."

Connors argues that engine providers shouldn't just focus on creating tools that enable devs to make great games; instead, they should be thinking about how they can help those studios make their games successful.

"We want to help developers build the highest-quality games, spend less time on the muck of creating the backend infrastructure needed to build multiplayer and community-driven games, and connect with their players, broadcasters, spectators and fans," he says. "We achieve this by providing a free triple-A engine, so developers can spend more on differentiating their game, making it easier to build connected experiences by providing deep integration with AWS, and helping designers make games as fun to watch as they are to play with our Twitch integration."

Finally, Patel reiterates that the real opportunity for games engines lies beyond our own industry.

"Customers have been able to utilise the Stingray tech outside of the games industry," he says. "DreamWorks joined us at NAB to share how they used it for *Kung Fu Panda* concept work. Stingray is also the engine behind Autodesk Live, allowing architectural and construction professionals to visualise their building designs."

Ultimately, as long as people are making games – or all manner of interactive experiences – engine providers will have opportunites to hone, enhance and reinvent their products in order to enable creators to achieve their visions. ■



**Most engine companies are shifting to a much broader perspective on content creation.**
*Maurice Patel, Autodesk*



**There's always room for a product that offers something that did not exist yesterday.**
*Lee Bamber, Game Creators*



**There's tons of room for innovation when it comes to engines, especially in cloud and community features.**
*JC Connors, Amazon*

# WHAT DO DEVS LOOK FOR IN AN ENGINE?

All the major engines are built and improved based on community feedback, but what do devs of the world really demand from their tools? **James Batchelor** asked them

## THE CHINESE ROOM

*Dan Pinchbeck, Creative Director and Studio Head*

**We made the decision to shift over to Unreal after we shipped *Everybody's Gone To The Rapture* largely because of the community. As we knew we'd be self-funding a title, we wanted to be in a place where there were lots and lots of other developers all experimenting and breaking things and helping to fix them again.**

**We also wanted an engine that was adaptable enough to take on whatever we ended up doing – something with the power to give us a *Rapture*-level finish, but that could also work as a flexible template at a simpler level than that. Unreal can get to places Unity can't if you are pushing up the presentational quality, but it's still really adaptable and flexible.**





## MODERN DREAM *Helana Santos, Technical Director*

**A crucial point for any game engine is to have a good support team. This involves having great communication with their customers, fast bug turnaround time and solid version releases. There is nothing worse than finding a crash bug caused by the engine when you are trying to do a release build of your game.**

**Documentation and learning tools are vital. Great accessibility means more time for developers to implement features instead of learning how to use the tools provided.**

## SIGTRAP GAMES

*Luke Thompson, Co-founder*

We focus heavily on prototyping and iteration of core mechanics, so our number one requirement is an engine that lets us implement ideas fast. Performance is far less important – if you can't absolutely nail an awesome core loop, you'll never have a game worth playing at any framerate.

Multi-platform is also important – many factors determine a game's target platforms, but the engine shouldn't be one.

Finally, a good editor with excellent extensibility, as custom tooling is absolutely essential in the real world.

Unity's component model is perfect for prototyping – good use allows fast coding of new behaviours while also minimising 'baked in' decisions for later changes.

## TRIANGULAR PIXELS

*Katie Goode, Creative Director*



I'm after an engine which allows me to create levels as quick as I can draw on paper, but then has tools to line up objects to grids or to surfaces, and move objects with millimetre accuracy.

We've been using Unity and there are key features that seem to be missing – which was slowing me down. Not only have we had to download a few tools off the asset store, but John has had to create quite a few tools for me. It would have been nice if these tools were part of Unity by default, but I don't think I could manage with an engine that doesn't allow us to fairly quickly create custom tools.



## DREAMLOOP GAMES

Dreamloop chose to develop using Unity because it had a laundry list of great things going for it. If (for some horrible reason) we needed to choose another engine, we'd look for the same general factors:

## DLALA STUDIOS



*Ben Waring, Technical Lead*

Accessibility is key and this means user-friendly visual development tools or editor.

Ease of use allows simplified, rapid development of games with fewer cross-departmental roadblocks. A low learning curve helps too, allowing newbies to get up to speed quickly.

Customisation is massive. There is no way the engine developer can supply us with everything we need, so we require the ability to personalise as we see fit.

Time is money – primarily a game engine needs to save us both. Fast engine/script compile times mean faster iteration. Cross-platform integration allows us to get our games on our platforms of choice as quickly and painlessly as possible.

Finally, we require easy integration into an automated build process to save developer time, alert the team of breakages and facilitate speedier testing.



## WEST COAST *Boomer Rogers, Director of Software*

**We like to see if the engine itself is future-proof – can we devote resources and develop skills without the engine becoming obsolete one year down the line? To ensure we don't run into this trap, we check to see how active its community is, how widespread its adoption is and if it has third-party support.**

**Next, we typically see how ergonomic the engine is: how easily our team can pick it up and start producing something tangible. Particularly important is the maturity of out-of-the-box features the engine supplies, platform support and documentation coverage.**

**Finally, we look at the extendibility of the engine itself; can we create a tooling system that allows our non-programming staff the ability to create meaningful gameplay? Can our programmers get into the code to fix bugs or create new features? For us, open-source code via GitHub is huge.**

*Steve Stewart, Co-founder*

**1.** It's supported by both Xbox One and PlayStation 4. Most major engines are, but Unity makes it easy to build for both consoles and PC.

**2.** It's well known by most developers in our scene, and finding a crew that can work magic with it was pretty easy.

**3.** The license agreement for indie developers is grand. It allows small teams to worry about developing first, and license fees later, after you've actually sold copies of your title.

**Cost, platform support, a vibrant community, regular updates, performance... jeez I'm fussy.**
Rinse Wash Repeat (@RinseWashRepeat)

**Cost, control, command line.**
Ashley Gwinnell, Force of Habit (@ashleygwinnell)

**Low memory/CPU footprint. C/C++ lang. Cross-platform, extensible, open-source and active community.**
David Amador, Upfall Studios (@DJ_Link)

**It has to be cross-platform, e.g. the editor has to run on Mac as well as PC.**
Jonathan Dixon, independent (@itsafeature)

**Cross-platform, good editor, good multi-threaded performance, not having to write in C/C++.**
Alexander Birke, Out of Bounds (@Alexander Birke)

**1. Rapid Prototyping. 2. Artist Tools. 3. Licence Cost.**
Desk Dragons (@DeskDragons)

**Editor (scene & code). Everything else one can work around, but with inadequate tools, productivity suffers across the board.**
Stephen Caruana, Pixie Software (@Caruanas)

**Handles all the rendering, good scene editor. Supports many file types for assets. C#/C++ support. Builds to consoles.**
Alex Rose (@AlexRoseGames)



# EASIER IN THE NINETIES



As the studio's platforming throwback Yooka-Laylee continues to take form, Playtonic Games' Gavin Price tells **James Batchelor** why making retro-style video games is tougher than you might think

As the titular duo of *Yooka-Laylee* hop, roll and glide around the game's opening level, it's almost impossible not to be drawn back to the days of *Super Mario 64*, *Crash Bandicoot*, *Spyro The Dragon* and, yes, *Banjo-Kazooie*.

Of course, nostalgia for these early 3D platformers is part of the driving force behind *Yooka-Laylee* and its record-breaking Kickstarter – not just that of the gamers that backed it, but also the ex-Rare devs at Playtonic Games.

Much of the title's presentation and gameplay feels particularly evocative of a certain bear-and-bird series, but studio director Gavin Price insists the team has drawn inspiration from more than their back catalogue. There are elements, such as the garbled vocal noises in the place of full dialogue, that can be found throughout the genre.

"Because of our background, people are just assuming that's like-for-like from *Banjo*," Price explains. "But I'm actually a big fan of things like the gobbledygook speech. Even if I'd never worked at Rare, I'd like to think I'd be doing stuff like that.

> **To get third-party tools to do now what one programmer used to do in a day takes ages.**
> *Gavin Price, Playtonic*



"When you do things like speech in modern games, everything's spoken out and blasted out at you – you don't really get the chance to impose your own thoughts and feelings on the characters. I always remember when I was playing SNES games, particularly RPGs, the characters never spoke so you'd be reading the text but imagining their personalities and what they might sound like when they were talking.

"Gobbledygook speak is kind of a halfway house – you get a hint of what the character sounds like and what their personality is but it's up to you as the player to fill in the gaps."

Price reveals that this jumbled up dialogue is much more difficult to implement in 2016: "It was easier to do gobbledygook back in the day because of the way audio and speech were created and produced in games. Now, you have all these third-party tools – to get them to do what one programmer used to do in a day takes ages."

## SIMPLER TIMES

A new form of nostalgia is taking hold at Playtonic: the team reflecting affectionately on processes that were far simpler back in the days of the Nintendo 64. While countless independent titles mimic retro styles – most often those of the 8-bit and 16-bit era – Playtonic has found that harking back to the earliest 3D games is not as pleasant a trip down memory lane as they'd hoped.

"Games today are more complex," Price says. "Back in the day, we had one processor for doing everything. Now you have the graphics processor talking to the CPU, which is talking to something else.

"There are now multiple sub-systems and all sorts of stuff working with each other in the background; you can't 'write it cowboy' like you could back in the day. Now, everything can have a knock-on effect on the rest of the game, so it has to be written to a much better standard. Every asset has to be produced to a higher level of quality."

Simple things like conversations between characters can be tricky. Even without the speech involved, the process of having cartoon heads appearing

alongside the text is more complicated that it once was – not to mention simple UI effects such as transparency.

"Every game ever has managed to fade an object in," says Price. "But the way we're doing it now, it might not be working on one object, so we'd have to look at the material and the shader and the way it was made.

"An object these days has its top-level texture, bitmap, colour map, depth map, bump map – all these things on one object. Before, you only had to fade one texture on and off on an N64 title. Now you're doing it for all these different layers of materials that make an object up. It's actually a lot harder."

Larger processes such as level design have also become more involved thanks to the dramatic rise in graphical fidelity over the past two decades. Conflicts between what each team wants to accomplish can cause problems.

"The artists want to make everything look amazing and pretty," Price says. "Back in the day on *Banjo*, you'd know everything in-game that looked interesting was there because that's what they had the budget for. Anything that didn't look interesting you knew not to bother with.

"Now you have all these intricate shapes, so it's really difficult to define gameplay areas and establish what will attract players over, to get them to easily get their bearings. Even though the artists are trying to put in as many triangles as possible because all their life they've been dreaming of massive polygonal budgets for their games and they want to make everything look as nice as possible."



Playtonic counts many Rare alumni among its workforce – but Price insists the studio is more than a tribute act



## GENERATION GAME

Fortunately, Price observes, members of the team that have founded their career on modern development tools are helping the old dogs learn new tricks.

"Becky [Lavender] and Karn [Bianco], a couple of our younger engineers, found a way of visually scripting challenges so it's more like piecing together a flowchart for the designers," he says.

"Before this, we'd often write a design doc, give it to a programmer and there would be a lot of back and forth. But now they've created this tool that lets the designers sort things out themselves. If we want to script a camera to appear and trigger here, or an animation to pop up and play a sound effect, or set an objective, we now have the tools to do it ourselves.

"It's a godsend for designers because we get to iterate, try to see what works and what doesn't, find out what's rubbish and chuck it away – all without bothering other people or wasting their time."

For every complication advanced toolsets have created, there is often a solution. The flexibility of the Unity engine, on which *Yooka-Laylee* is built, and the plethora of handy plug-ins found in the Unity Asset Store have been invaluable to the veterans at Playtonic.

"We don't want to be bogged down with technical issues," Price says. "We want to be a creative firm where if we come up with an idea, we can just pursue it, not worry about the technology that's behind it.

"We know we're always going to be doing these character-driven, creative, comedic and fun games. They'll be in different genres but the skills we learn from one project can transfer straight to the next one. It gives us confidence that we can go and do more genres in the future."

## MORE TO LEARN

*Yooka-Laylee* has represented new ground for a lot of Playtonic's founding members; it's the first multi-format release they have worked on and, with an initially smaller team, a lot more work has to be put into polishing the final product. But it's an experience Price and his colleagues have welcomed.

"As we've gone along, we've learned to become better developers," he says. "We're currently in this big phase of performance optimising.

"The first level is one of the more technically challenging to render and keep the performance up. You have to think about what level of detail will appear at what distances, what meshes will combine – all sorts of things we'd never imagined we'd need to be doing.

> **Yooka-Laylee should technically be our most difficult and worst-critiqued game.**
> *Gavin Price, Playtonic*

"At least with future games we know more about this and can think about it from the start. This time, it's more luck than judgment."

It's these future games Price is thinking of as work progresses on *Yooka-Laylee*.

"I've always said to the team that this game technically should be our most difficult and worst-critiqued game that we make – even though I want it to be fantastic," he reveals.

"This is the first time we've used most of these tools, so we'll be better at using them in future and able to take on more daring creative risks without risking the commercial side of the business. Who knows what we'll do in the future?" ■

# A BREAKTHROUGH IN REAL-TIME CINEMATOGRAPHY

## Award-winning Unreal Engine 4 demonstration points to the future of filmmaking

SIGGRAPH 2016 attendees witnessed a next-gen filmmaking demonstration that challenges the notion of how content is created for games, movies, VR and more.

Expanding on the *Hellblade: Senua's Sacrifice* showing at GDC 2016, Ninja Theory, Epic Games, Cubic Motion and 3Lateral reunited for the real-time live presentation, 'From Previs to Final in Five Minutes'.

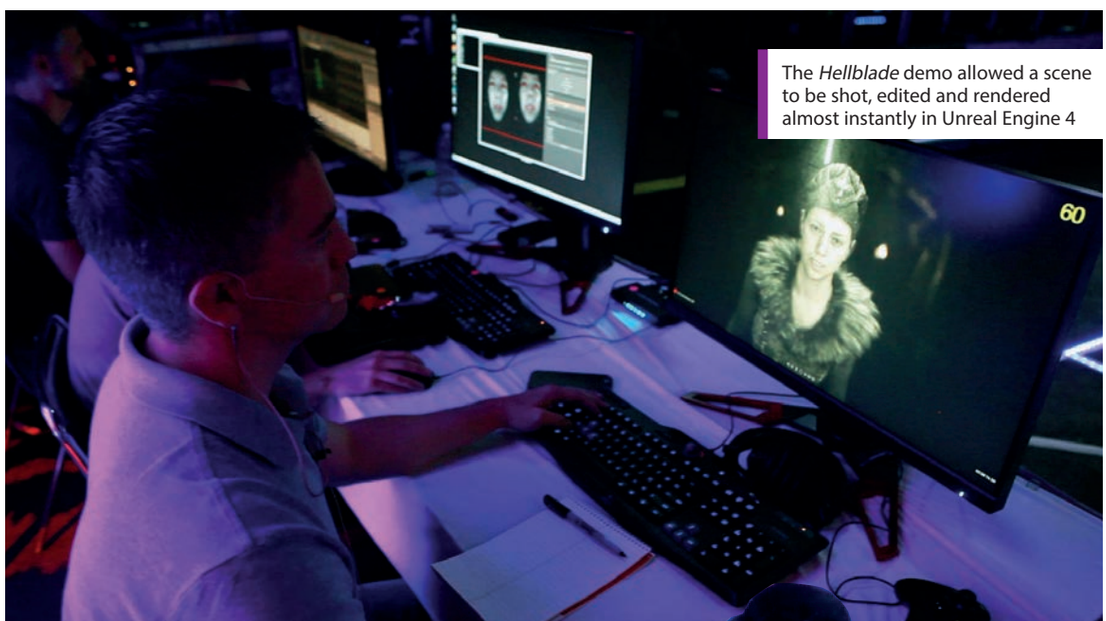
In just minutes, a scene based on *Hellblade* was shot, edited and rendered in front of a live audience.

Real-time cinematography brings together motion capture data, powerful rendering and collaborative editing – all within Unreal Engine 4.

Through new Unreal Engine technologies and techniques, famed and indie storytellers alike are creating cinematic content for all types of screens at a speed and quality level that has never been possible until now.

In the *Hellblade* demonstration, every nuance of the digital character's facial expressions, lighting, visual effects and sets are visible in real time to final render quality. Rather than capturing to film, everything is rendered as digital 3D data directly into Unreal Engine 4 using its powerful new Sequencer tool.

Unlike traditional games and film previsualisation methods that only provide crude character representations, the techniques revealed during SIGGRAPH empower creatives to capture, edit, playback, and export to offline 3D applications and output to video at any resolution.



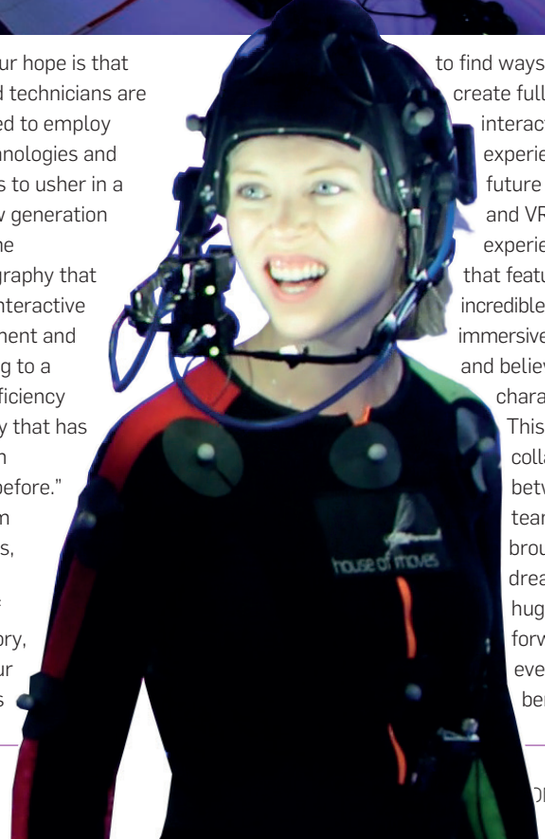

The *Hellblade* demo allowed a scene to be shot, edited and rendered almost instantly in Unreal Engine 4

"This demonstration required the teams to challenge ourselves both technically and creatively to think about the future and deliver a working example of what is now possible through the power of Unreal Engine 4 and the Sequencer tool," said Epic CTO Kim Libreri.

> **These technologies and techniques could allow devs to usher in a new generation of real-time cinematography.**
> *Kim Libreri, Epic*

"Now, our hope is that artists and technicians are empowered to employ these technologies and techniques to usher in a whole new generation of real-time cinematography that will take interactive entertainment and storytelling to a level of efficiency and quality that has never been achieved before."

Tameem Antoniades, creative director of Ninja Theory, added: "Our end goal is to find ways to create fully interactive 3D experiences for future games and VR experiences that feature incredible, immersive worlds and believable characters. This amazing collaboration between our teams has brought the dream a huge step forward – to everyone's benefit." ■





## HEARD ABOUT

# THE ASSEMBLY

**John Broomhall** discusses innovative audio approaches for VR with NDreams' Matt Simmonds

NDreams' new VR title, *The Assembly*, is an intriguing first-person interactive drama in which players investigate a shadowy organisation that's been conducting secret experiments, their astonishing breakthroughs made possible by operating outside government scrutiny and society's morals.

But what's the organisation hiding and how far will it go to keep its existence buried? For audio producer Matt Simmonds, the project presented a fascinating opportunity to explore new virtual audio ground.

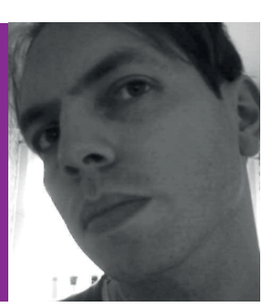
**As you embarked on your maiden VR voyage 12 months ago, what did you discover?**

The first immediate difference was how players respond to new environments. For the most part, players spend much longer experiencing the environment – even if they're not actively engaging with it. So we've had to rework our ideas on ambience over time, having things evolve gradually, understanding players will be in the game space far longer than in 2D games.

You need more attention to detail, with even seemingly mundane objects populated with emitters to make them feel more solid. The other obvious difference is with positional audio – the verticality is striking – not just that looking up and down is cool, but also combining things outside the player's viewpoint with things within the player's viewpoint, like loud objects you can spatially pinpoint but can't actually see, in turn causing a reaction such as shaking in objects you can see. This really works well.

You're operating in an audio setting with no framing. How much that affects sound design depends on the project, but it certainly changes your approach to many things. It's about removing some of the traditional 'go-tos' we take for granted. For example, I've found ducking and 'focused audio' can take a step back. I did use that approach for the main VO on one project but in future I'd rather re-work the way assets are recorded and placed.

> **In VR, players spend much longer experiencing the environment – even if they're not actively engaging with it.**
> *Matt Simmonds, NDreams*



Meanwhile, I've found incidental music score surprisingly useful – it can still greatly enhance the experience and it really doesn't feel weird having music 'following' the player on a narrative title like *The Assembly* – a good discovery. I've also found VR has gotten audio noticed and addressed within the dev team.

**What advice would you give an audio designer contemplating their first VR project?**

Think carefully about dialogue recording. It's a difficult thing to manage but in a narrative game I think a larger sense of the scene's environment comes into play. The player viewpoint takes away old concepts of a 'game camera', plus omitting ducking and sound focus removes the notion of the player's audio being 'controlled'.

So, what are you left with? Record dialogue the way the actor would respond to environment. If it's quiet, downplay it – you can even whisper it in VR and have it work. Same with competing sound loudness – have them shout against the environment. For the latter, I think having crystal clear dialogue in the mix isn't something you'll strive for compared to a greater sense of realism. You re-work dialogue so the implication is obvious even if the words are not.

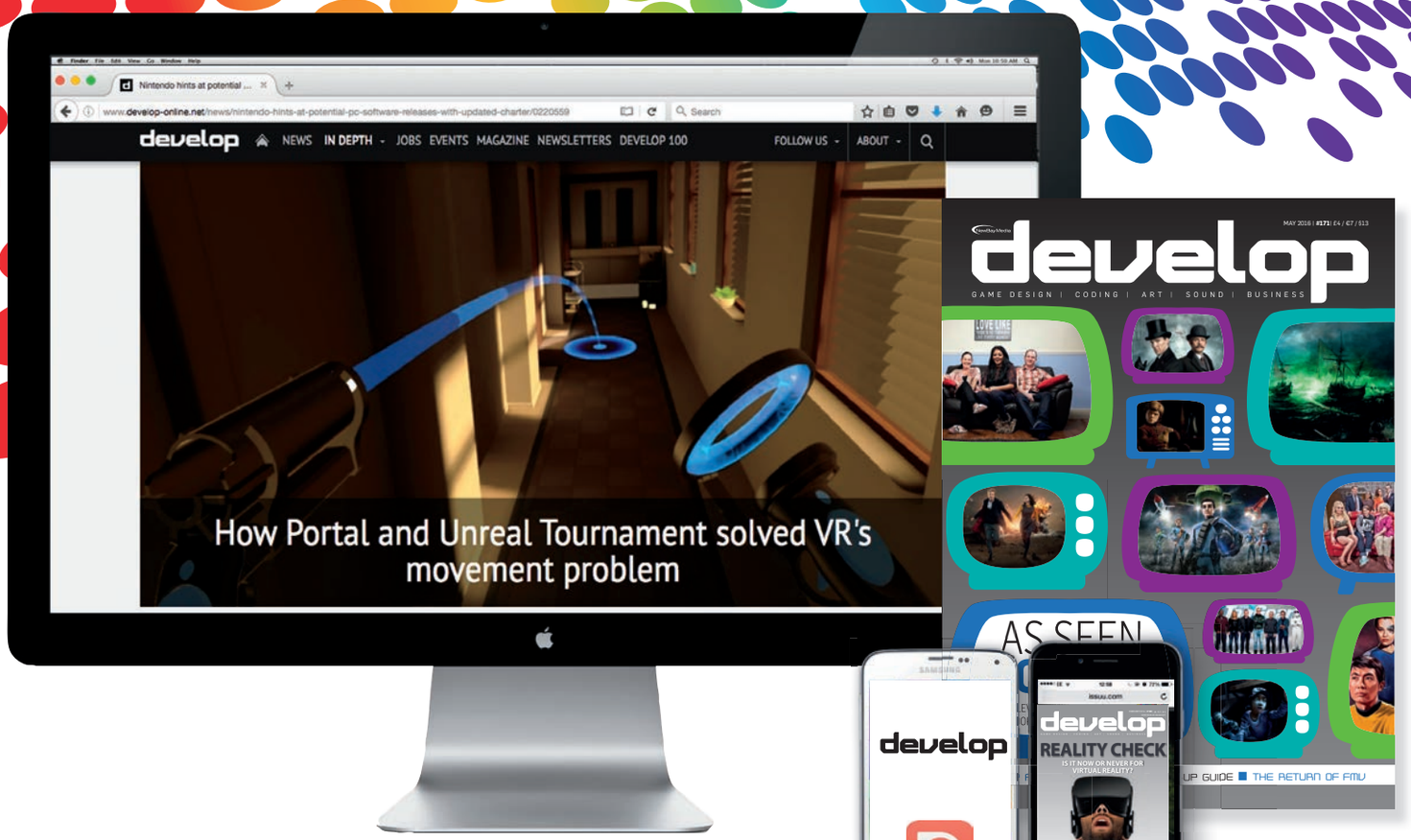
Get your third-party technology choices settled early, start thinking about mixing sooner rather than later and allow generous scheduling for it – though remember that actually mixing and placement are kind of interchangeable going forward. Think ahead how you'll deal with the obvious technical difficulty of having to wear the headset whilst mixing.

**What future developments in VR audio do you expect?**

One tech thing is a more accurate simulation of room spaces. Technology already exists to allow mapping walls of a room with materials, so a wall made of glass will reflect sounds differently to one made of wood. How the reflections interact gives you the sound of the room space. Doing that on a more granular level, with more sound sources, will really make objects feel part of the environment. ■



John Broomhall is a game audio specialist creating and directing music, sound and dialogue
**www.johnbroomhall.co.uk**




# enjoying develop?

## Scan the QR code and sign up for your subscription NOW!

Over 400,000 developers, programmers and games industry professionals read Develop via print, mobile and desktop every month.

Over 200,000 unique visitors to Develop-Online.net each month.*

NewBay Media

For advertising please contact
Charlotte Nangle on:
**cnangle@nbmedia.com**

For editorial please contact:
James Batchelor, Editor
**jbatchelor@nbmedia.com**

*Source: Google Analytics

# HOW TWIMLER KEPT FRUIT BUMP SWEET WITH ANALYTICS

**Majid Khosravi** reveals why the studio decided to utilise Unity Analytics and the ways in which the data-tracking platform allowed its match-three title to thrive




As any good developer knows, nowhere are analytics more vital than on mobile. With factors such as session length and average revenue per user (ARPU) correlating to the sink-or-swim nature of most smartphone titles, tracking and understanding data is absolutely key.

When Twimler decided to launch its next title in one of the mobile sector's most highly-contested genres – the match-three game – founder Majid Khosravi knew that picking the right analytics platform could make or break *Fruit Bump*.

"Unity Analytics not only offered a range of free, powerful tools which worked seamlessly with the Unity game engine, but also boasted a user-friendly, fully comprehensible interface with which to analyse the data," he recalls. "Given the importance of said data in today's game industry, choosing an appropriate analytics provider was a decision I took very seriously. However, where other analytics providers were concerned, I often found them to be lacking in at least one or more of Unity Analytics' aforementioned strengths, which in turn led me to choose the platform."

## KNOW YOUR STUFF

Of course, finding the right service is just the start – devs must then ensure they are keeping on top of the right metrics in order to fully appreciate their players' trends.

"The session length and ARPU metrics, combined with the custom reports functionality were of particular value, as they allowed me to identify important information regarding which game levels, on average, players were reaching before dropping out," Khosravi reveals. "I could even identify which levels appeared to encourage the sole IAP *Fruit Bump* offered and boost revenue.

"Utilising this data, in combination with Unity Ads, saw our daily average users grow exponentially from 500,000 to 800,000 since mid-January – creating 300,000 new daily average users in just two months – whilst resulting in over 70 per cent increase in sales and over 60 per cent increase in ad revenue."

## DIVIDE AND CONQUER

Analytics can track a huge number of factors, all of which are useful both independently and in relation to other elements, and which can be used to group similar users together in order to refine an effective strategy for each type of player.

"By using custom events such as levels completed, total session time and level completion rate, we were empowered to, effectively, segment our users into skill levels," Khosravi recalls. "This allows us to better monitor how players are progressing and alter level designs to maintain an optimum user progression rate and overall user engagement.

"By taking IAPs into account, we also segmented users into 'buyers' and 'non-buyers', ensuring that the experience each segment of player enjoys is better tailored to them. Both groups are now offered different IAP special offers, with 'buyers' being presented with package deals focused on customisation or time-saving, whereas 'non-buyer' packages may focus on limited-time, high-value offers to better encourage that first purchase."

## DESIGN ASSISTANCE

Coming to understand its players better has also affected Twimler's development methods for the future, Khosravi adds, with analytics extending to influence core design facets.

"Preparing custom events appropriately, depending on your game, can really help in analysing difficulty levels and assessing how players are engaging with your game," he advises. "Achieving cognitive flow, where gameplay strikes that perfect balance between difficulty and skill can be, in my opinion, vital to any game's success.

"As experience has taught us, certain gameplay can seem simple in a developer's mind but, for whatever reason, either fail to draw mass appeal from users or even confuse them. We now use Unity Analytics in combination with beta testers to better assess Minimum Viable Product performance before additional investment is considered.

"Essentially, by adopting a data-driven design process we are better able to understand user preferences and in turn provide a richer overall experience and subsequently create a better end product." ■

> **Striking the perfect balance between difficulty and skill is vital to any game's success.**
> *Majid Khosravi*



# ASK AMIQUS

**Q Name dropping: is it ever OK? I've worked with some pretty big names in the business but I don't know if it's appropriate to throw such information around. But I also want the interviewer to know that I am pretty well versed in all facets of games.**

This is a great question and there is no single answer. There are several things to consider.

The games industry has its fair share of legends and inspirational figures respected for some world-renowned titles. If you're lucky enough to have worked with these people, it's natural to want to associate yourself with these achievements.

Hirers certainly understand that there are some studios and individuals who select only the most talented people to work with them and so gaining some kudos for having been a chosen one is not unreasonable.

It's good to show people that you have had exposure to very high standards of work and if working directly with someone has helped you achieve what you're capable of then go ahead and mention it. However, it must be directly relevant to what you have achieved in your career, rather than relying on what they have achieved.

One thing to consider is your environment and whether anyone else apart from the interviewer is within earshot. It's not unusual for early stages of a hiring process to begin with a phone/Skype interview or even in a coffee shop. When in public, dropping names that can be heard by others is a definite no-no. It's also good to be aware what professional details and co-workers you are revealing in a more general sense when speaking to anyone in a public place – you never know who might be listening. It's always best to err on the side of being discreet.

## ART OF THE NAME-DROP

The term 'name-dropping' itself has a connotation that someone is trying to seek gains by associating with the work of someone else. It's unlikely name-dropping would ever get you a job but it could put off potential employers if this isn't their style, so starting out with a list of names up front is potentially unwise.

> Too many names could take away from the skills you have learned from great people.

Studios for whom association is important are likely to ask directly about who you have worked with, so if you're comfortable to share, wait until you are asked rather than offering it up front. As a starting point, make some decisions about which name or names you are going to reference before the interview and why. Be clear in your mind about how their contribution has impacted your career and be sure that mentioning them shows what you can do, not what they can do.

It's really all about balance. The key is not to go too far by dropping lists of names one after the other, this could be viewed as arrogance. Too many names could take away from the skills you have learned from great people and might dilute rather than enhance the benefit of your association, leaving the interviewer unimpressed. Instead, show your appreciation of the relationship you had, and keep your humility that you have become a better games professional because you have been open to the teachings and experience of others.

## WANTING YOU FOR YOU

In our experience, what an interviewer is most interested in is the personal capability you are bringing to the studio, rather than who you know. The best way forward is to describe your skills and experience with humility and discretion, using names with caution and only as a means to describe how their influence has enhanced your skills. Always focus on the contribution that you specifically made so that the interviewer can see what you have to offer.

At the end of the day, alongside your fit for the team, it is your work, code and portfolio that will demonstrate your suitability for the job – not someone else's achievements. ■






**Liz Prince**, business manager at recruitment specialist Amiqus, helps solve some of the trickier problems job seekers currently face in the games industry

amiqus Visit **amiqus.com** for a fresh perspective on games recruitment

develop

CIRCULATION IS OVER 9,500

**Editorial:** 01992 515 303
**Advertising:** 0207 354 6000
**Web:** www.develop-online.net

**Subscription UK: £35 Europe: £50 Rest of World: £70**
**Enquiries, please email: dev.subscriptions@c-cms.com Tel: 01580 883 848**
Charges cover 11 issues and 1st class postage or airmail dispatch for overseas subscribers
**Develop is published 11 times a year, reaching 9,500 readers throughout the UK and international market**

NewBay Media is a member of the Periodical Publishers Associations

© NewBay Media 2016 All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means electronic or mechanical, including photocopying, recording or any information storage or retrieval system without the express prior written consent of the publisher. The contents of Develop are subject to reproduction in information storage and retrieval systems. Printed by Pensord, Tram Road, Pontllanfraith, NP12 2YHA

PRESENTED BY Future

# STILL TIME TO BOOK A TABLE



THE **ONLY** GAMING AWARDS VOTED FOR BY **GAMERS**

The Golden Joystick Awards are BACK and will be broadcast live online

## Friday 18th November 2016

A table for 12 people is just £4,320 which includes:
– Champagne reception
– Three course meal
– Awards ceremony
– Entry to awards afterparty at Brooklyn Bowl within the O2

34TH GOLDEN JOYSTICK AWARDS

MEDIA PARTNERS

DS Digital Spy.

Absolute Radio

To book tables or enquire about sponsorship opportunities please contact **Andrew.Church@futurenet.com**

# FUTURE GAMES SUMMIT

Follow us on Twitter @FutureGamesSMT

## Save the date

**23rd - 24th November 2016**

**Millennium Mayfair, London**

▶ 40+ expert speakers from across the games industry and beyond ▶ 250+ attendees ▶ 15+ exhibitors ▶ 2 day multi-track conference incorporating roundtables, panel discussions, live debates and interviews!

## Day One

- Investment & finance
- VR & AR
- The future of mobile games & monetization
- Building a more inclusive games industry
- The role of games in the future of the UK economy

## Day Two

- eSports
- Regulation & Integrity
- Optimising eSports team sponsorship
- Analytics & eSports monetisation
- Traditional sports vs eSports
- How brands can step into the world of eSports?
- Advertising & media buying in eSports

**INTERESTED IN SPEAKING AT THE FUTURE GAMES SUMMIT 2016?**

**Contact Caroline Hicks on chicks@nbmedia.com**

---

**If you are interested in sponsoring the Future Games Summit, please contact Conor Tallon on ctallon@nbmedia.com for more information on our bespoke packages!**

Media Partners

MCV esports pro develop PCR